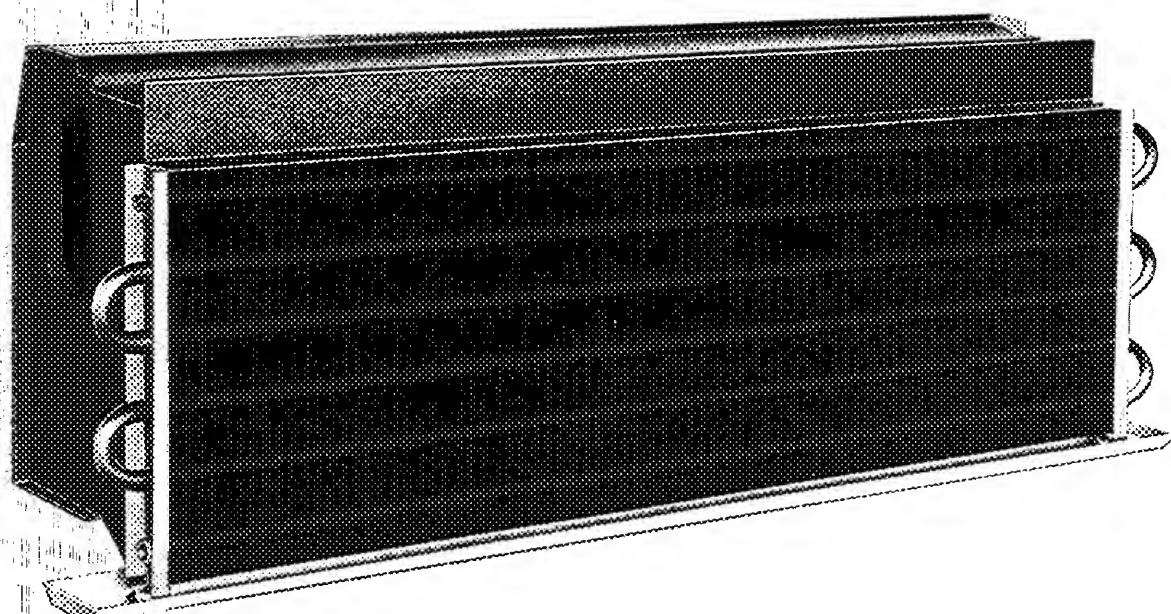


Carrier

Water Control Weathermaster® Induction Air Terminals

36S

19.4 – 131.9 cfm
1770 – 8900 Btuh



36S Series Induction Air Terminals-

Water control Weathermaster® induction systems use 36S series air terminals for space-saving and economical air conditioning in office buildings, hotels, schools, and apartments to provide year 'round comfort in each room. Nine models are available in lobby, horizontal and vertical configurations, 5 for 2-pipe systems and 4 for 4-pipe systems. Each model comes in 4 sizes, each with a choice of 5 different nozzle arrangements to provide desired air flow. Terminals may be furred-in or enclosed in optional, decorator-styled cabinets. When you specify 36S terminals, you choose from

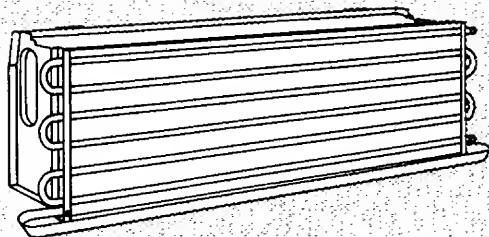
the best selection of models and capacities in the industry, and you are able to match the equipment to your job requirements more closely than has ever been possible before. Carrier's optimized computer selection assures that the terminals you buy meet the performance and sound criteria you need, without causing additional operating expense or energy waste as a result of improperly sized components.

Since 36S air terminals require no bulky or cumbersome ductwork that robs valuable space, building height requirements can be less, an important factor in

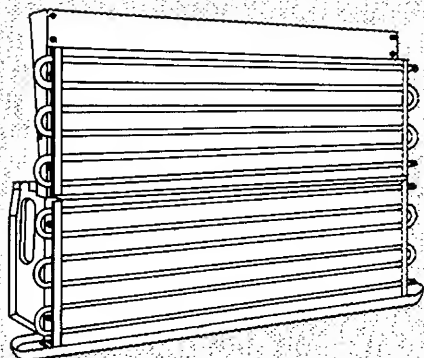
lowering total building cost. And that's not all — see the section entitled 14 Great Reasons to Choose a Carrier 36S Induction System on the next page!

Carrier, the most experienced maker of air terminals, builds the units of the 36S series to exacting standards governing product quality. Units are rated in accordance with the American Refrigeration Institute (ARI) Standard 445-66. And the nationwide Carrier Factory Service team stands behind every 36S terminal. You can't buy a better unit anywhere. If you're going induction, you can't afford not to consider the units of the 36S series.

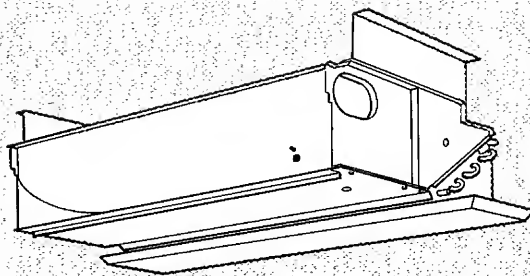
Carrier has the right induction terminal for every 2-pipe system...



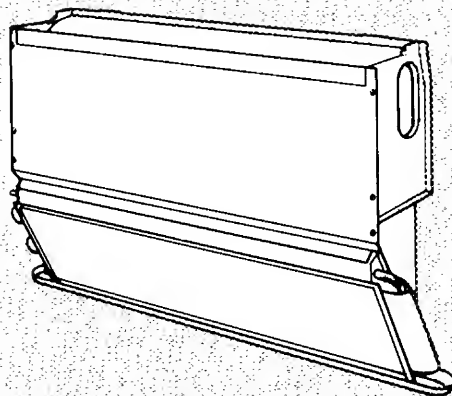
36SL lobby, single coil; measures only a foot high; for applications where the window arrangement calls for a small terminal with high capacity.



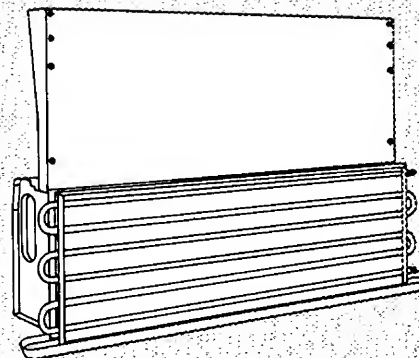
36ST a high-capacity vertical unit with a double-size coil for maximum cooling performance.



36SH the standard horizontal unit; ceiling mount to save valuable floor space.



36SV measuring less than 8-in. deep, this standard wall-hung unit is a real space saver.



36SC a vertical wall-hung unit with high-efficiency recovery stack; for use in areas where higher capacities are needed.

- **Heat and Cool from a single terminal** — and you can choose the most economical central station way to heat hot water, steam, electric.

- **Energy savings with gravity heat** — on vertical units, you can shut down the air distribution system and save fan horsepower. Hot water circulates to maintain the temperature in unoccupied rooms. Simple, economical convector heating.

- **Heat reclaim/energy conservation** — you can easily adapt an economizer cycle along with other reclaim/energy conservation methods such as double-bundle condensers, etc. to a 36S induction system.

The system may be 2-pipe or 4-pipe to best match the building's energy needs.

- **Low central station air handling system costs** — you save installation costs by minimizing building service connections for electricity, water, and drainage, you save operating, maintenance, and control costs since you can use high efficiency air cleaning equipment to realize decorating cost savings, while at the same time improving odor and pollen control . and you can use sprayed-coil dehumidifiers for more effective quality air supply and winter humidification

- **Automatic actual load adjustment** — system operating costs are not materially affected by the excess capacity of the system. The terminals automatically adjust to actual loads, thus allowing you wide design latitude without paying the penalty of high operating costs

- **Quiet, reliable operation** — each terminal has a specially designed balancing damper, acoustical plenum insulation, and high efficiency nozzles and coils to ensure reliably quiet operation. And no moving parts

- **Positive ventilation** — the primary air is always provided with a positive amount of outside ventilation air directly added to every module served by a 36S air terminal.

- **Constant air movement** — the primary air provides continuous air motion and circulation throughout the room.

- **Reliable temperature control** — each room is its own zone. Room occupants can have the temperature as they like it, and the unit responds to individual room load requirements

- **Greater rentable area** — typically, units are wall-hung or may be ceiling mounted so your design can make maximum use of rentable floor area

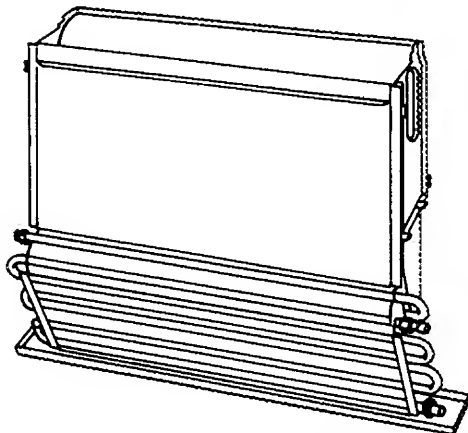
- **Reduced floor-to-floor height requirements** — the smaller, high-velocity air ducts used in these systems, along with small water pipes, can mean great savings in the overall height of the building itself

- **Positive year 'round humidity control** — the exterior zone humidity can be easily controlled by dehumidifying the constant air supply in the summer and humidifying during the winter.

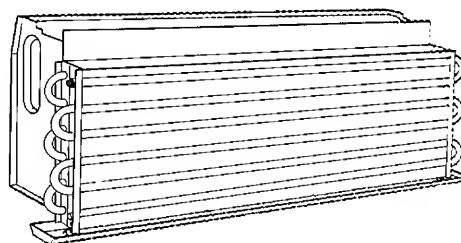
- **Complete design flexibility** — the wide range of capacities and models, coupled with the fact that Carrier offers units for both 2- and 4-pipe systems, leaves you an almost unlimited range of cost-trimming, energy saving design options.

- **Mechanical equipment is located remote from the room occupants** — the central system approach removes the sound-generating components from the building occupants. Simplifies equipment selection.

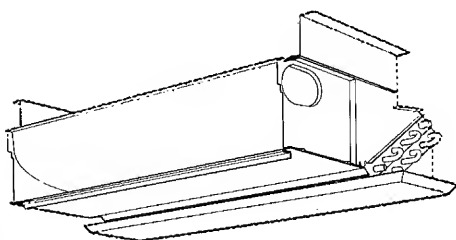
...and every 4-pipe system, too!



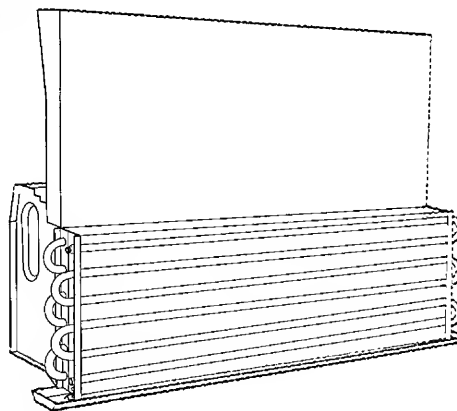
36SD standard vertical wall-hung unit with back-to-back coils.



36SM lobby, double coil unit; small terminal that fits under virtually every window.



36SJ the standard horizontal unit with double coil; may be ceiling mounted to save floor space.



36SP vertical wall-hung unit with high efficiency recovery stack and double coil; use in areas where high capacities are a must.

Going 2-pipe or 4-pipe?

	2-pipe changeover	4-pipe
Best overall performance		X
Lowest operating cost		X
Best heat recovery potential		X
Lowest first cost	X	
Lowest installation cost	X	
Lowest control cost	X	
Lowest primary air required		X

Two-pipe non-changeover systems are less costly than 2-pipe changeover systems. However, the application potential of non-changeover systems is somewhat limited to areas with fairly mild winter design conditions. For this reason, the non-changeover 2-pipe system has been omitted from the cost comparison table.

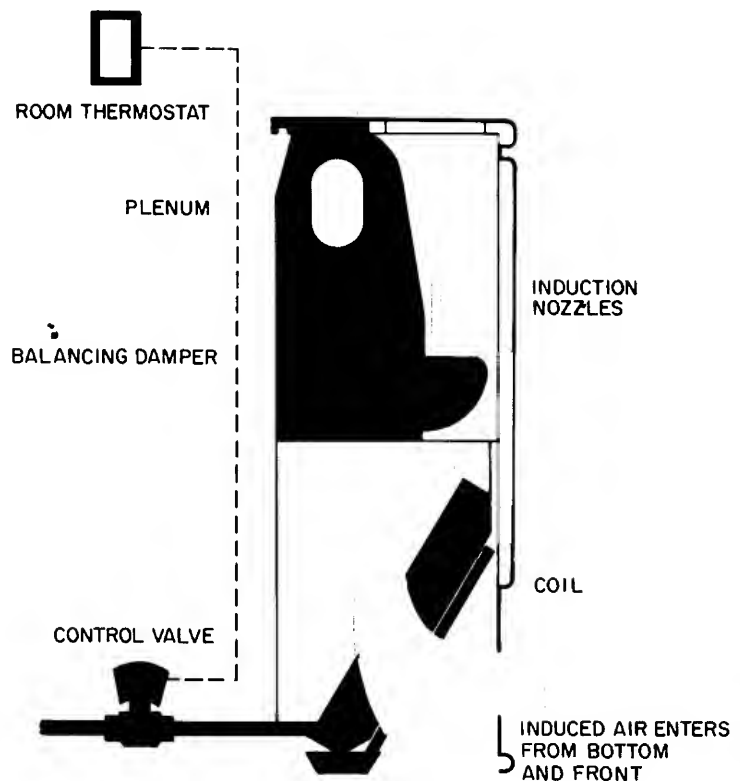
How Water Control Induction Terminals work

A mixture of outdoor and return air is conditioned in the central station air handling apparatus and distributed thru a high-velocity, high-pressure duct system to the terminal unit. Typically, this duct runs up the side of the building, feeding into space-saving narrow take-off ducts on each floor. The conditioned primary air flows into the *unit plenum* and passes thru its *balancing damper* to the *induction nozzles*. This balancing damper can handle up to 3-in. wg pressure drop without adversely affecting the unit's sound power level. The entire plenum is surrounded with acoustical insulation.

As the primary air leaves the nozzles, it induces secondary (room) air thru the unit's coils. Depending on the temperature of the water supplied to the coils, the secondary air will either be cooled or heated. In a 4-pipe system, separate circuits are provided for hot and cold water.

Unit capacity is controlled either manually or by a *room thermostat* which modulates a field-installed *control valve*. The valve, in turn, modulates the water flow thru the coils to maintain the desired room temperature.

Depending on the degree of modular flexibility desired, one thermostat can control one or more units. Also, units may be used to feed air to adjacent units.



Unit designations

Water Control Weathermaster® Air Terminals are designated by series, model, size, nozzles, hand, coil connections, and condensate pan.

Series and Model Size		3 6 S V 2 - H R 2 2		Condensate Pan Coil Connection Hand R/L Nozzle											
Series and Model	36SL	2-pipe units							Lobby unit						
	36SC								Vertical unit with recovery stack						
	36ST								Vertical unit with double coil						
	36SV								Vertical wall-hung unit						
	36SH								Horizontal unit						
	36SD	4-pipe units							Vertical wall-hung unit						
	36SP								Vertical unit with recovery stack						
	36SM								Lobby unit						
36SJ	Horizontal unit														
Size	1	Nominal 24-in. unit													
	2	Nominal 32-in. unit													
	3	Nominal 40-in. unit													
	4	Nominal 52-in. unit													
Nozzle*	F (Gray)	Provides highest coil capacity per cfm of primary air. Used where sensible cooling is high in relation to ventilation requirements													
	G (Red)	Gives performance midway between F and H													
	H (Black)	Provides nominal coil capacity per cfm of primary air Used for average office buildings with normal lighting loads and glass areas													
	J (Black and Green Alternate)	Gives performance midway between H and K													
	K (Green)	Provides highest coil capacity per unit size and high- est air quantities. Used for high ventilation and high total loads													
Hand†	R	Right-hand coil connection when facing unit													
	L	Left-hand coil connection when facing unit													
Coil Connections	0	Standard sweat fittings													
	1	Sweat fittings with manual air vent													
	2	Flare fittings													
	3	Flare fittings with manual air vent													
Condensate Pan	0 or 1	Standard emergency condensate pan													
	2	Drainable condensate pan, connections same hand as coil													

*Nozzles are designed to optimize the thermal efficiency at minimum sound power generation. They are suitable for handling up to 175 F supply air. Primary air quantity is controlled by the number and diameter of the holes in the nozzle.

†On 4-pipe units, coil hand is determined by the cooling coil which is inside. The heating coil (outside) connections are at the opposite end.

Water control packages are field-supplied.

Unit selection criteria (general)

After room air conditioning loads have been calculated and the primary air quantity determined, the induction air terminals can be selected. To calculate coil loads for the units, the primary air cooling capacity is subtracted from the room load.

Primary air cooling capacity depends upon the exposure and type of system being designed. The air quantity should satisfy the ventilation and dehumidification requirements of the conditioned space as well as other system requirements. These system requirements are discussed in detail in the *Carrier System Design Manual*. Both this manual and the *Engineering Guide for Weathermaster® Induction Systems* should be consulted for a more complete explanation of system requirements.

When an induction air terminal is selected, 2 parameters must be satisfied: the unit must supply the air at an acceptable sound power level and it must have enough unit capacity to maintain the proper room temperature.

Two methods of selection are available: computerized and manual. Samples

SOUND SELECTION GUIDE*						
For Various NC Levels and Room Effects						
NC LEVEL	ROOM EFFECT† ($L_w - L_p$)	NOZZLE PRESSURE (in. wg)				
		Unit Nozzle Arrangement				
		F	G	H	J	K
30	8 dB	2.4	2.2	2.0	1.8	1.5
35		3.0	2.7	2.5	2.4	2.0
40		3.5	3.5	3.2	3.1	2.6
45		3.5	3.5	3.5	3.5	3.5
30	10 dB	2.6	2.4	2.2	2.1	1.7
35		3.3	3.1	2.9	2.7	2.3
40		3.5	3.5	3.5	3.4	3.0
45		3.5	3.5	3.5	3.5	3.5

*Based upon size 2 units with 1.5 in. wg damper drop.

†For 4000- and 8000-Hz center-band frequencies increased by 1 and 2 dB, respectively, over given value per Carrier Engineering Guide for Sound and Air Conditioned Space and the ASHRAE Guide and Data Books. This literature can also be referred to for NC level recommendations for specific applications. For unit sound power level data, refer to the unit application data literature.

NOTE: Boldface entries are the commonly accepted levels for an office space.

of the 2 selection methods are shown here. An Alternate Computer Evaluations (ACE) data service is available through your local Carrier representative. He should be consulted for detailed information regarding computerized selection of these units and other Carrier equipment.

Alternate computer evaluations

Selection Program

This method selects the best size and nozzle arrangement of an air terminal on the basis of cooling load and required sound level. It also provides alternate selections at slightly higher sound levels (3 dB or less) and at a slightly lower capacity (5% or less).

The computerized selection method can handle both changeover and non-changeover systems, 2-pipe and 4-pipe systems. It allows the user to set all specifications, i.e., cooling, induction heating and gravity heating requirements, nozzle pressure limits, water pressure drop limits, and sound limits. The sound limits can be specified as a noise criteria (NC) level with the appropriate room absorption effect ($L_w - L_p$) or directly as sound power levels. Various room entering water and supply air temperature combinations can be tested to establish their effect on unit selection and total system cost.

Programs for computerized selection have their own input data form. This form can be obtained through your local Carrier representative.

Performance Program

This method allows you to select the terminal and vary the parameters to find the best, most economical combinations.

Program Limits

The following are the value limits which have been used in developing the 36 Series selection programs. Values outside these specified limits will be rejected by the computer.

ITEM	VALUE LIMITS	
	Minimum	Maximum
Primary Air Quantity (cfm)	0	250
Damper Pressure Drop (in. wg)	0	4.0
Nozzle Pressure Drop (in. wg)	0.5	4.0
Coil Water Pressure Drop (ft wg)	1.6	40.0
Total Cooling Load (Btuh)	0	14,000
Room Temperature (F)	0	100
Primary Air Temperature (F)	0	150
Water Temperature (F)	32	215
Transmission Heating Load (Btuh)	0	1,000,000
Gravity Heating Load (Btuh)	0	25,000

Computer unit selection (sample)

INPUT

10 A	Unit Identification
11 SV	Model Type
20 60	Primary Air Quantity
30 5645	Total Sensible Load
32 76	Room Temperature Cooling
33 52	Ent Water Temperature Cooling
34 56	Primary Air Temperature Cooling
40 5200	Transmission Heating Load
42 76	Room Temperature Induction Heating
44 50	Primary Air Temperature Induction Heating
51 3500	Coil Sensible Heating Load
52 60	Room Temperature Gravity Heating
60 35	Noise Criteria Level (NC)
71 8	Room Absorption Effect (Lw - Lp)
99 99	End of Problem Indicator
END	

OUTPUT

UNIT ID	A
ALTERNATIVES	SPEC
MODEL	36SV
SIZE + NOZZLE	2-H
P.A. CFM	60.0
NOZZ. PD, IN	2.12
WTR GPM	1.61
WTR PD, FT	9.01
INDUCTN CLNG	
CLNG CAP'Y	5645
CAP'Y RATIO	1.000
COIL CAP'Y	4349
ROOM DB TEMP	76.0
P.A. DB TEMP	56.0
ENT WTR TEMP	52.0
INDUCTN HTNG	
HTNG CAP'Y	5200
ROOM DB TEMP	76.0
ENT WTR TEMP	114.5
GRAVITY HTNG	
HTNG CAP'Y	3500
ROOM DB TEMP	60.0
ENT WTR TEMP	154.2
SOUND DB	250
RE 10 - 12	500
OCTAVE	1000
BAND	2000
MD-FR	4000
(HZ.)	8000
(LW-LP) + NC	8-35
ARI STD RATING POINT	
CLNG CAP'Y	4030
P.A. CFM	50.5

Manual unit selection (example)

Cooling — The cooling capacity of the induction unit is determined by the combined secondary coil and primary air cooling capacities at design conditions. In 4-pipe applications, the heating coil is assumed to be neutral for selection purposes.

1. Determine job requirements.

Given.

Type of unit 36SV
Total room sensible cooling load 5645 Btuh
Design room temperature (t_{rm}) 76 F
Entering primary air temperature (t_{pa}) 56 F
Minimum primary air quantity 60 cfm
Entering water temperature 52 F
Maximum desired room sound level
($L_w - L_p$) and NC 8 and 35

2. Determine required primary air capacity. Subtract this capacity from total cooling load to determine required coil capacity.

Since the room temperature minus the primary air temperature (76 F — 56 F) is 20 F Δt , use the 36SV Cooling Coil Capacities table directly to read the capacity for 60 cfm of primary air

Primary air capacity at 60 cfm = 1296 Btuh

Required coil capacity = 5645 — 1296 = 4349 Btuh

Since the room temperature minus the entering water temperature (76 F — 52 F) is 24 F and the Cooling Coil Capacities table is based upon 25 F temperature difference, the required coil capacity must be corrected for the 24 F temperature difference.

Use formula

$$\text{Corrected coil capacity} = \frac{25}{24} \times 4349 = 4523 \text{ Btuh}$$

3. Determine unit size, water flow nozzle arrangement, and nozzle pressure.

Enter the 36SV Cooling Coil Capacities table at 60 cfm. Select a size 2H unit with a rated coil capacity 4469 Btuh. Since rated unit capacity is below that required, more than the table base 1.50 gpm is required. Coil Capacity Multipliers For Flow Rates table must be used. Required capacity must be divided by unit rating at 1.50 gpm to obtain a factor for use with this table.

$$\text{Factor} = \frac{4523}{4469} = 1.01$$

The table indicates that a flow rate of 1.60 gpm will be necessary to obtain the required capacity. Nozzle pressure is 2.11 in. wg.

4. Select unit size to meet sound level requirements specified. Refer to Sound Selection Guide table. Verify that nozzle pressure of selected unit is acceptable from a sound standpoint. Since maximum desired room sound level at ($L_w - L_p$) and NC is 8 and 35, an H nozzle arrangement has a maximum allowable nozzle pressure of 2.50 in. wg. Selected unit will be satisfactory.

5. Final selection, therefore, is a 36SV-2H unit.

Heating — The total heating load required is the combined room heating load (transmission) and the load required to temper the primary air to room temperature (primary air heating load). In 4-pipe applications, assume the cooling coil is neutral.

1. Determine job requirements for unit selected.

Given

Room heating load (transmission) 5200 Btuh
Design room temperature (t_{rm}) 76 F
Design primary air temperature (t_{pa}) 50 F
Primary air quantity 60 cfm
Entering water flow 1.60 gpm
Unit selected for cooling 36SV-2H

2. Determine primary air heating load. Use formula

$$\text{Primary air heating load (Btuh)} = \text{cfm} \times 1.08 \times (t_{rm} - t_{pa})$$

$$\text{Primary air heating load} = 60 \times 1.08 \times (76 - 50)$$

$$\text{Primary air heating load} = 1685 \text{ Btuh}$$

3. Determine total unit heating load. Use formula

$$\text{Unit heating load (Btuh)} = \text{primary air heating load} + \text{room heating load}$$

$$\text{Unit heating load} = 1685 + 5200$$

$$\text{Unit heating load} = 6885 \text{ Btuh}$$

4. Determine entering water temperature required to meet required total heating load. Use formulas

$$\text{Total heating load} = \left(\frac{t_{ew} - t_{rm}}{25} \right) \times \text{corr coil rating at 25 F } \Delta t$$

$$t_{ew} = t_{rm} + \left(\frac{\text{total heating load}}{\text{corr coil rating at 25 F } \Delta t} \right) \times 25$$

$$t_{ew} = 76 + \frac{6885}{4469} \times 25 = 114.5 \text{ F}$$

Gravity heating

1. Determine job requirements.

Given

Gravity heating load 3500 Btuh
Design room temperature (during shutdown) . . . 60 F

2. Adjust load to coil water flow rate. Since the Gravity Heating Capacities table is based upon 1.50 gpm and the coil has a gpm of 1.60, the load must be adjusted to an equivalent 1.50 gpm to use the table. Use the following formula

$$\text{Corrected heating load} = \frac{\text{actual heating load}}{\text{correction factor}}$$

$$\text{Corrected heating load} = \frac{3500}{1.03} = 3400$$

3. Determine entering water temperature required to meet required gravity heating load. From the 36SV Gravity Heating Capacities table, read the temperature difference for the selected unit at the required capacity. By interpolation, the temperature difference for a 36SV-2H unit with a gravity heating capacity of 3400 Btuh is 93.6 F. Use formula

$$t_{ew} = \text{temperature difference} + \text{design room temperature}$$

$$t_{ew} = 93.6 + 60 = 153.6 \text{ F}$$

Performance data

36S SERIES COIL CAPACITY MULTIPLIERS FOR FLOW RATES

GPM	NOZZLE ARRANGEMENT															
	F				G				H				J			
	Unit Size															
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
0.6	0.91	0.90	0.85	0.82	0.88	0.85	0.82	0.79	0.85	0.84	0.80	0.77	0.83	0.82	0.78	0.76
0.8	0.94	0.92	0.90	0.88	0.91	0.89	0.86	0.84	0.90	0.88	0.85	0.83	0.87	0.85	0.83	0.81
1.0	0.96	0.95	0.94	0.93	0.95	0.93	0.92	0.91	0.94	0.93	0.91	0.90	0.93	0.92	0.90	0.89
1.2	0.98	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.97	0.96	0.96	0.95	0.96	0.96	0.95	0.94
1.4	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.98
1.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.6	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
1.8	1.02	1.02	1.02	1.03	1.02	1.03	1.03	1.03	1.03	1.03	1.04	1.04	1.03	1.03	1.03	1.03
2.0	1.03	1.03	1.04	1.04	1.04	1.04	1.05	1.05	1.04	1.05	1.05	1.06	1.04	1.05	1.06	1.06
2.2	1.04	1.05	1.05	1.06	1.04	1.05	1.06	1.06	1.05	1.06	1.07	1.07	1.05	1.06	1.07	1.08

NOTE: For capacities at other than 1.50 gpm, multiply capacities from Cooling Coil Capacities table by above multipliers.

COIL WATER PRESSURE DROP (ft water)

GPM									
0.60	0.80	1.00	1.20	1.40	1.50	1.60	1.80	2.00	2.20
1.60	2.70	3.90	5.40	7.20	8.00	9.00	11.00	13.40	15.70

NOTE: Table shows single coil pressure drops, all units, except 36ST.
For 36ST at the same gpm, multiply above values by 2.

ACCESSORY LINT SCREENS (in.)*

LOCATION	UNIT SIZE				36 - UNIT TYPE
	1	2	3	4	
Directly On Coil	25 1/8 x 10	33 x 10	41 x 10	53 x 10	All Models
Over Return Air Grille	x 11 1/2	43 x 11 1/2	51 x 11 1/2	63 x 11 1/2	SH, SJ only

*14 x 18 mesh; 1/2 in. thick.

ARI CERTIFIED STANDARD RATINGS

SIZE AND NOZZLE	PRIMARY AIR FLOW (Cfm)	COOLING CAPACITY (Btuh)						
		36SV,SH	36SL	36SC	36ST	36SD,SJ	36SM	36SP
1F	19.4	1960	2060	2510	2720	1770	1940	2360
2F	25.3	2600	2730	3330	3600	2340	2570	3130
3F	31.1	3290	3460	4220	4570	2960	3250	3970
4F	40.8	4210	4430	5390	5840	3790	4160	5070
1G	27.2	2570	2650	3180	3500	2320	2440	2930
2G	35.4	3370	3450	4140	4550	3030	3170	3810
3G	43.5	4220	4330	5180	5710	3800	3980	4770
4G	57.1	5330	5460	6550	7210	4800	5020	6030
1H	38.9	3090	3090	3650	4080	2790	2780	3290
2H	50.5	4030	4030	4740	5310	3620	3630	4270
3H	62.2	5010	5010	5910	6620	4510	4510	5320
4H	81.6	6330	6330	7460	8350	5700	5700	6710
1J	50.8	3380	3290	3780	4340	3040	2900	3330
2J	64.9	4350	4240	4870	5590	3910	3730	4290
3J	81.3	5380	5230	6000	6890	4840	4600	5280
4J	105.5	6730	6560	7550	8660	6050	5770	6640
1K	62.8	3590	3410	3850	4500	3230	2900	3270
2K	81.6	4610	4370	4930	5770	4150	3710	4190
3K	100.5	5680	5380	6070	7100	5110	4570	5160
4K	131.9	7100	6740	7610	8900	6390	5730	6470

APPROXIMATE UNIT OPERATING WEIGHTS (lbs)

MODEL 36	UNIT SIZE			
	1	2	3	4
SL	18	23	28	35
SC	29	37	45	58
ST	32	40	49	63
SV	28	37	43	54
SH	33	42	49	61
SM	23	28	35	44
SP	34	42	52	67
SD	34	44	52	66
SJ	38	48	56	70

NOTE: Weights include water in the coil but do not include field-supplied control valve packages.

36SL,SC,SV,SH APPROXIMATE COIL WATER QUANTITIES

UNIT SIZE	1	2	3	4
GALLONS	0.13	0.17	0.21	0.26
LBS	1.10	1.40	1.70	2.20

NOTE: For 36ST, SM, SP, SJ, and SD values, double the values shown in the table.



Units are rated in accordance with ARI Standard 445-66, under the following conditions: 1.5 gpm of 50 F water, 8-ft water pressure drop thru coil (16-ft for 36ST), 75 F db and 57 F wb air entering coil, 1.5 in. wg nozzle static pressure

36SL loboy unit (2-pipe)

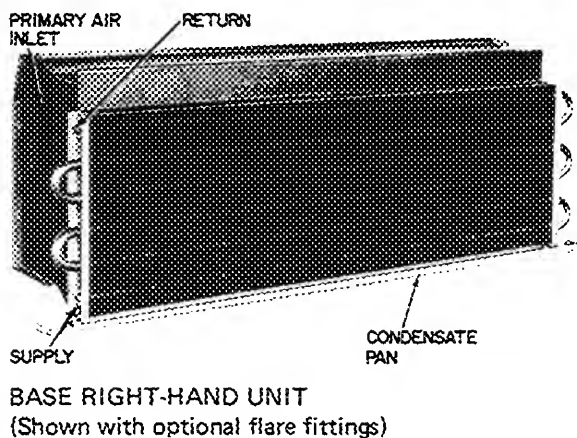
The 36SL in its standard enclosure measures only about 12 inches high and 10 inches deep. The base unit is shipped from the factory with the following

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10–24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



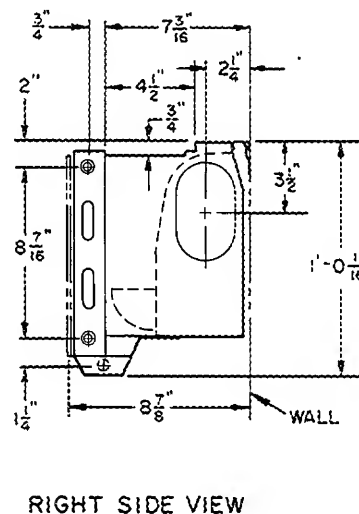
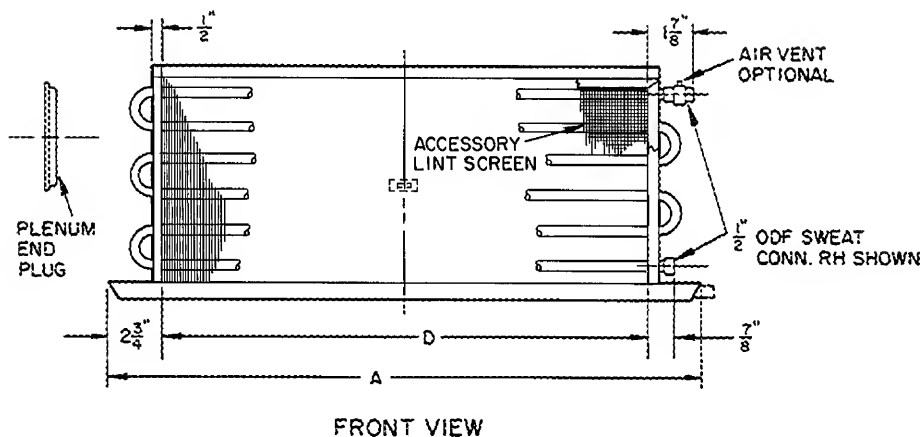
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	3780	3150	2550	1955	1385
2	5040	4200	3400	2605	1845
3	6300	5250	4255	3260	2310
4	8190	6825	5530	4235	3000

NOTE: For capacities other than 1.50 gpm, use the following multipliers – 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)				
A	29½	37½	45½	57½
D	24¼	32	40	52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	124	165	206	269

This is not a certified print. Certified dimensions available upon request.



Performance data

36SL COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		Unit Size				Unit Size				Unit Size				Unit Size				Unit Size			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89 1614																			
20	432	1.59 2123	0.94 2185			0.81 2151															
25	540	2.48 2626	1.47 2702	0.97 2752		1.26 2504	0.74 2735														
30	648	3.57 3125	2.11 3215	1.39 3274		1.82 2836	1.07 3098	0.71 3308		0.89 2639											
35	756		2.88 3724	1.90 3792	1.10 3772	2.48 3151	1.46 3441	0.97 3675		1.21 2902	0.71 3204										
40	864		3.76 4229	2.48 4306	1.44 4284	3.24 3451	1.91 3770	1.26 4025	0.73 4267	1.58 3152	0.94 3479			0.92 2867							
45	972		3.14 4818	1.82 4793		2.42 4085	1.60 4362	0.93 4624	2.01 3389	1.19 3742	0.78 4030		1.17 3058	0.72 3466							
50	1080		3.88 5326	2.25 5299		2.99 4390	1.97 4687	1.14 4968	2.48 3617	1.46 3993	0.96 4300	0.56 4612	1.45 3241	0.89 3673			0.95 3011				
55	1188			2.72 5803		3.62 4685	2.39 5002	1.39 5302	3.00 3836	1.77 4235	1.17 4561	0.68 4892	1.75 3415	1.07 3871	0.68 4182			1.15 3161			
60	1296			3.24 6304			2.85 5308	1.65 5626	3.57 4048	2.11 4469	1.39 4812	0.81 5162	2.09 3582	1.28 4060	0.81 4387			1.36 3305	0.81 3742		
65	1405			3.80 6804			3.34 5606	1.94 5942		2.48 4695	1.63 5056	0.95 5423	2.45 3743	1.50 4243	0.95 4584			1.60 3444	0.95 3898		
70	1512						3.88 5897	2.25 6250		2.87 4915	1.90 5293	1.10 5677	2.84 3899	1.74 4419	1.11 4775			1.86 3577	1.10 4049	0.72 4449	
75	1620							2.58 6552		3.30 5128	2.18 5523	1.26 5924	3.26 4050	2.00 4590	1.27 4959	0.75 5446		2.13 3706	1.26 4195	0.83 4609	
80	1730							2.94 6847		3.76 5337	2.48 5747	1.44 6164	3.71 4196	2.27 4756	1.45 5138	0.86 5643		2.43 3830	1.44 4336	0.95 4764	
85	1838							3.32 7136			2.80 5966	1.62 6399		2.57 4917	1.63 5312	0.97 5834	2.74 3951	1.62 4473	1.07 4914		
90	1942							3.72 7419			3.14 6181	1.82 6629		2.88 5074	1.83 5482	1.09 6020	3.08 4069	1.82 4606	1.20 5060	0.69 5572	
95	2055										3.50 6390	2.03 6854		3.21 5227	2.04 5647	1.21 6202	3.43 4183	2.03 4735	1.34 5203	0.77 5729	
100	2160										3.87 6596	2.25 7074		3.56 5376	2.26 5809	1.34 6379	3.80 4295	2.25 4862	1.48 5341	0.86 5881	
105	2265										2.48 7290			3.92 5523	2.50 5967	1.48 6552		2.48 4985	1.63 5476	0.95 6030	
110	2375										2.72 7503			2.74 6121	1.63 6722			2.72 5105	1.79 5609	1.04 6176	
115	2482										2.97 7711			2.99 6272	1.78 6888			2.97 5223	1.96 5738	1.14 6318	
120	2590										3.24 7917			3.26 6421	1.94 7051			3.24 5338	2.13 5864	1.24 6457	
125	2700										3.51 8119			3.54 6567	2.10 7211			3.51 5451	2.32 5988	1.34 6594	
130	2810										3.80 8317			3.83 6710	2.27 7369			3.80 5561	2.51 6110	1.45 6728	
135	2918	<i>Boldface italics indicate nozzle pressure (in wg).</i>																			
		Ratings based on:																			
		25 Δt, 1 50 gpm, 8-ft water coil pressure drop (all sizes)																			
		Δt = t _{rm} - t _{ew}																			
		where, t _{rm} = room temperature																			
		t _{ew} = ent water temperature																			
		All ratings include allowance for lint screen																			
140	3022																				
145	3130																				
150	3240																				
155	3350																				
160	3460																				
165	3565																				
170	3675																				

NOTES:

1 Coil capacity for other than 25 F Δt

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1 50 gpm.

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SC vertical unit with recovery stack (2-pipe)

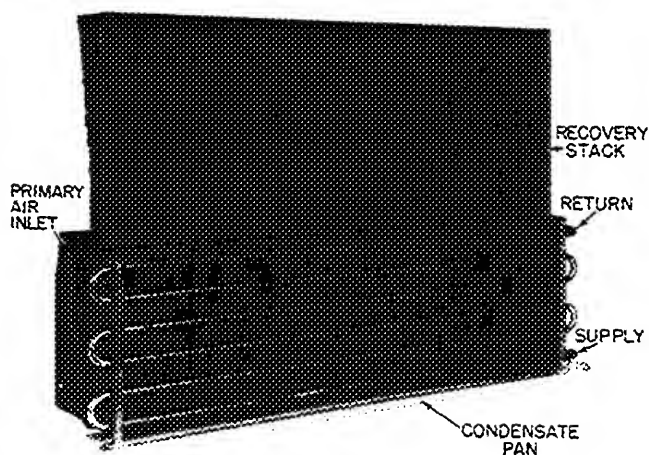
The 36SC in its standard enclosure measures 25 inches high and 10 inches deep. The base unit is the standard 36SL with an added recovery stack. The stack increases unit coil capacity with reduced sound power levels. The unit is shipped from the factory with the following

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **recovery stack and drain pan**, assembled ready for wall mounting

- **removable plenum end plug**, located in one of the primary air inlets
- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil.
- **speed nuts**, located in the back flange on each end of the plenum with two 10–24 bolts for leveling the unit.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



BASE RIGHT-HAND UNIT
(Shown with optional flare fittings)

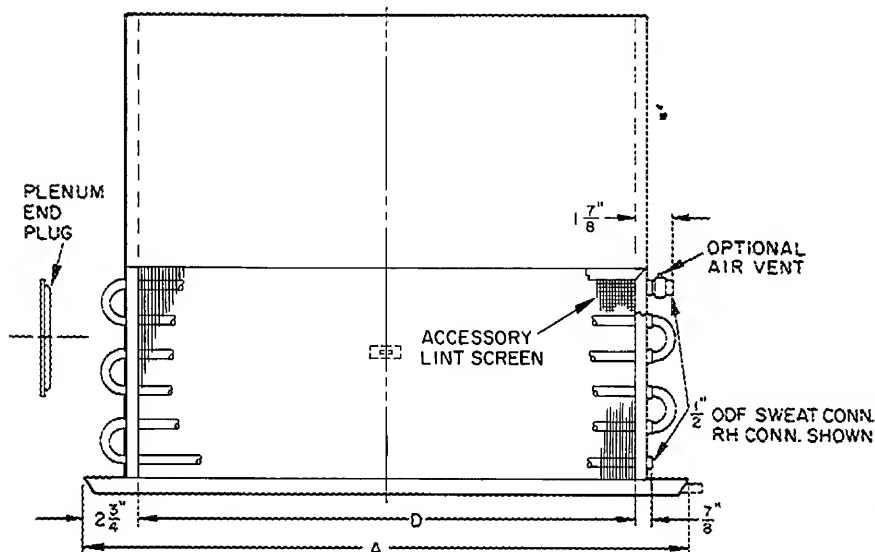
This is not a certified print. Certified dimensions available upon request.

GRAVITY HEATING CAPACITIES (Btuh)

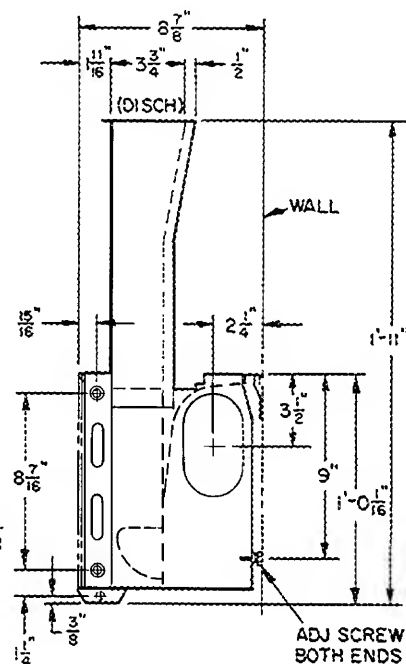
UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	5555	4630	3750	2875	2035
2	7410	6175	5000	3830	2715
3	9260	7715	6250	4790	3395
4	12,035	10,030	8125	6225	4410

NOTE: For capacities other than 1.50 gpm, use the following multipliers – 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)				
A	29½	37½	45½	57½
D	24¾	32	40	52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	237	315	394	512



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SC COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																										
Cfm	20 F Δt (Btuh)	F				G				H				J				K										
		Unit Size																										
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
15	324	0.89 1969																										
20	432	1.59 2591	0.94 2665			0.81 2581																						
25	540	2.48 3204	1.47 3297	0.97 3357		1.26 3005	0.74 3283																					
30	648	3.57 3812	2.11 3922	1.39 3994		1.82 3404	1.07 3718	0.71 3970		0.89 3114																		
35	756		2.88 4543	1.90 4626	1.10 4602	2.48 3781	1.46 4130	0.97 4410		1.21 3425	0.71 3781																	
40	864		3.76 5159	2.48 5254	1.44 5226	3.24 4142	1.91 4524	1.26 4831	0.73 5120	1.58 3719	0.94 4106			0.92 3296														
45	972			3.14 5878	1.82 5847		2.42 4902	1.60 5235	0.93 5548	2.01 4000	1.19 4415	0.78 4755		1.17 3516	0.72 3986													
50	1080				3.88 6498	2.25 6465		2.99 5268	1.97 5625	1.14 5962	2.48 4268	0.96 4712	0.56 5075	1.45 5443	0.89 3726			0.95 3404										
55	1188					2.72 7079		3.62 5622	2.39 6003	1.39 6363	3.00 4527	1.77 4997	1.17 5382	0.68 5772	1.75 3926	1.07 4450	0.68 4808		1.15 3574									
60	1296					3.24 7691			2.85 6370	1.65 6752	3.57 4777	2.11 5273	1.39 5679	0.81 6091	2.09 4119	1.28 4668	0.81 5044		1.36 3737	0.81 4230								
65	1405					3.80 8301			3.34 6728	1.94 7131		2.48 5540	1.63 5966	0.95 6399	2.45 4304	1.50 4878	0.95 5271		1.60 3893	0.95 4407								
70	1512								3.88 7077	2.25 7501		2.87 5799	1.90 6246	1.10 6699	2.84 4483	1.74 5081	1.11 5490		1.86 4044	1.10 4578								
75	1620								2.58 7862			3.30 6051	2.18 6517	1.26 6990	3.26 4656	2.00 5278	1.27 5702	0.75 6262	2.13 4190	1.26 4743								
80	1730								2.94 8216			3.76 6297	2.48 6782	1.44 7274	3.71 4824	2.27 5468	1.45 5908	0.86 6488	2.43 4331	1.44 4902								
85	1838								3.32 8563				2.80 7040	1.62 7551		2.57 5653	1.63 6108	0.97 6708	2.74 4467	1.62 5057								
90	1942								3.72 8903				3.14 7293	1.82 7822		2.88 5834	1.83 6303	1.09 6922	3.08 4600	1.82 5207								
95	2055												3.50 7541	2.03 8088		3.21 6010	2.04 6493	1.21 7131	3.43 4729	2.03 5354								
100	2160												3.87 7783	2.25 8348		3.56 6182	2.26 6679	1.34 7334	3.80 4855	2.25 5496								
105	2265												2.48 8603			3.92 6350	2.50 6860	1.48 7534		2.48 5635	1.63 6191	0.95 6818						
110	2375												2.72 8853				2.74 7038	1.63 7729		2.72 5771	1.79 6341	1.04 6982						
115	2482												2.97 9100				2.99 7212	1.78 7920		2.97 5904	1.96 6487	1.14 7143						
120	2590												3.24 9342				3.26 7383	1.94 8107		3.24 6035	2.13 6630	1.24 7300						
125	2700												3.51 9580				3.54 7550	2.10 8291		3.51 6162	2.32 6770	1.34 7455						
130	2810												3.80 9815				3.83 7715	2.27 8472		3.80 6287	2.51 6907	1.45 7606						
135	2918																	2.45 8650			2.70 7042	1.57 7755						
140	3022																		2.64 8824		2.91 7175	1.69 7901						
145	3130																			2.83 8996		3.12 7305	1.81 8044					
150	3240																				3.03 9165		3.34 7433	1.94 8185				
155	3350																					3.23 9332		3.56 7559	2.07 8324			
160	3460																						3.44 9496		3.80 7683	2.20 8460		
165	3565																							3.66 9658			2.34 8595	
170	3675																								3.89 9818			2.49 8727

Boldface italics indicate nozzle pressure (in wg)

Ratings based on

25 Δt , 1 50 gpm, 8-ft water coil pressure drop (all sizes)

$\Delta t = t_{rm} - t_{ew}$

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen

NOTES:

1 Coil capacity for other than 25 F Δt :

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1 50 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36ST vertical high-capacity unit (2-pipe)

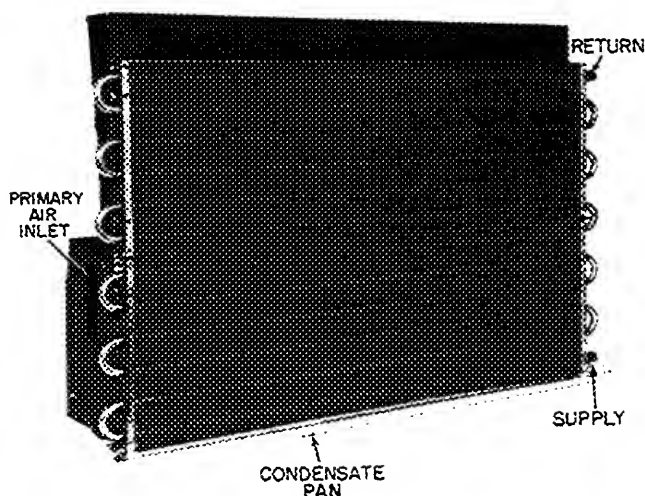
The 36ST in its standard enclosure measures 25 inches high and 10 inches deep. This unit provides the highest capacity per cfm of primary air of any model. It is shipped from the factory with the following:

- **plenum**
- **one 12-tube coil**, with copper tubes and aluminum fins
- **recovery stack and drain pan**, assembled and ready for wall mounting

- **removable plenum end plug**, located in one of the primary air inlets.
- **four lint screen clips**, taped to the bottom of the drain pan, to attach two accessory lint screens to the coil.
- **speed nuts**, located on the back flange on each end of the plenum, with 10–24 bolts for leveling the unit.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. Two accessory lint screens and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



BASE RIGHT-HAND UNIT
(Shown with optional flare fittings)

GRAVITY HEATING CAPACITIES (Btuh)

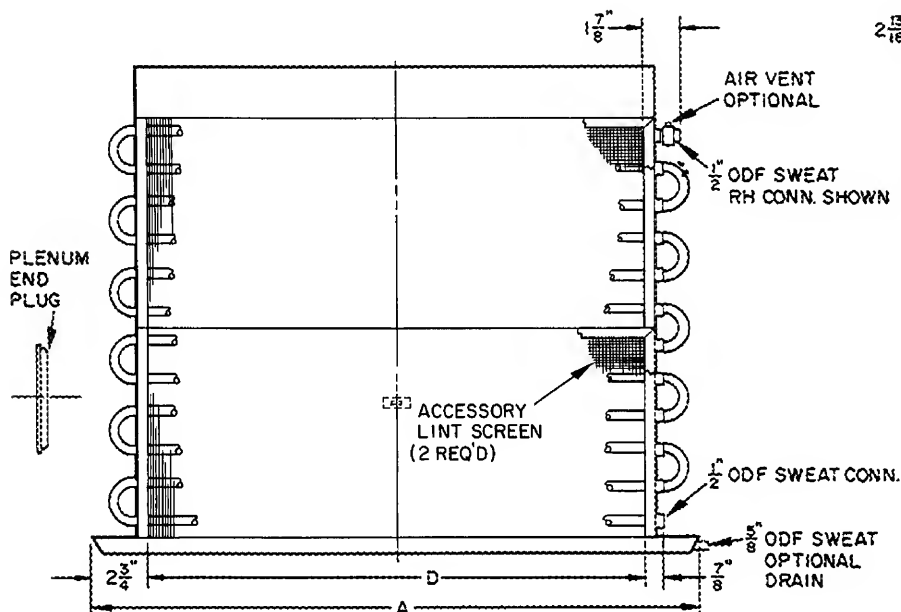
UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	7080	5900	4780	3660	2595
2	9440	7865	6370	4880	3460
3	11,800	9835	7970	6105	4325
4	15,340	12,785	10,360	7935	5620

NOTE:

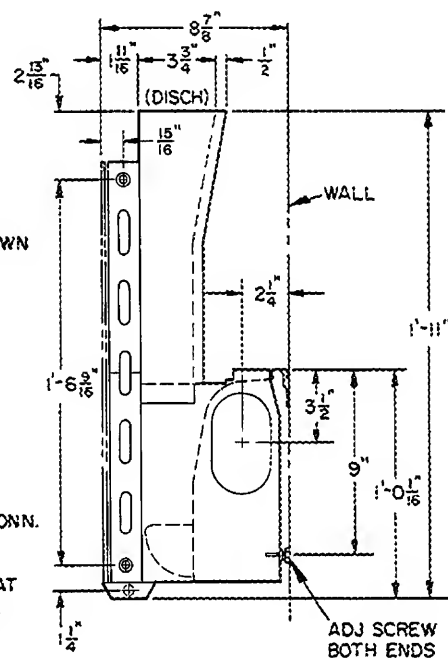
For capacities other than 1.50 gpm, use the following multipliers — 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)				
A	29½	37½	45½	57½
D	24¾	32	40	52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	473	630	788	1023

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36ST COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																						
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
15	324	0.89 2131																						
20	432	1.59 2803	0.94 2884			0.81 2839																		
25	540	2.48 3467	1.47 3567	0.97 3632		1.26 3306	0.74 3611																	
30	648	3.57 4125	2.11 4244	1.39 4321		1.82 3744	1.07 4089	0.71 4367		0.89 3484														
35	756		2.88 4915	1.90 5005	1.10 4979	2.48 4159	1.46 4543	0.97 4851		1.21 3831	0.71 4230													
40	864		3.76 5582	2.48 5684	1.44 5655	3.24 4556	1.91 4976	1.26 5314	0.73 5632	1.58 4160	0.94 4593			0.92 3784										
45	972			3.14 6359	1.82 6326		2.42 5393	1.60 5758	0.93 6103	2.01 4474	1.19 4939	0.78 5319		1.17 4037	0.72 4576									
50	1080			3.88 7031	2.25 6995		2.99 5795	1.97 6188	1.14 6558	2.48 4775	1.46 5271	0.96 5677	0.56 6088	1.45 4278	0.89 4849			0.95 3974						
55	1188				2.72 7660		3.62 6184	2.39 6603	1.39 6999	3.00 5064	1.77 5590	1.17 6021	0.68 6457	1.75 4508	1.07 5109	0.68 5520		1.15 4173						
60	1296				3.24 8332			2.85 7007	1.65 7427	3.57 5343	2.11 5899	1.39 6353	0.81 6813	2.09 4729	1.28 5360	0.81 5791		1.36 4363	0.81 4939					
65	1405				3.80 8981			3.34 7400	1.94 7844		2.48 6197	1.63 6674	0.95 7158	2.45 4941	1.50 5601	0.95 6051		1.60 4546	0.95 5146					
70	1512							3.88 7784	2.25 8251		2.87 6487	1.90 6987	1.10 7493	2.84 5147	1.74 5834	1.11 6303		1.86 4722	1.10 5345	0.72 5873				
75	1620								2.58 8648		3.30 6769	2.18 7290	1.26 7819	3.26 5346	2.00 6059	1.27 6546	0.75 7189	2.13 4892	1.26 5538	0.83 6084				
80	1730								2.94 9038		3.76 7045	2.48 7587	1.44 8137	3.71 5539	2.27 6278	1.45 6783		0.86 7449	2.43 5056	1.44 5724	0.95 6289			
85	1838								3.32 9419			2.80 7876	1.62 8447		2.57 6491	1.63 7012	0.97 7701	2.74 5216	1.62 5905	1.07 6487				
90	1942								3.71 9794			3.14 8159	1.82 8750		2.88 6698	1.83 7236	1.09 7947	3.08 5371	1.82 6080	1.20 6680	0.69 7356			
95	2055											3.50 8435	2.03 9047		3.21 6900	2.04 7455	1.21 8187	3.43 5522	2.03 6251	1.34 6868	0.77 7562			
100	2160											3.87 8707	2.25 9338		3.56 7097	2.26 7668	1.34 8421	3.80 5669	2.25 6417	1.48 7050	0.86 7764			
105	2265												2.48 9624		3.92 7290	2.50 7876	1.48 8649		2.48 6580	1.63 7229	0.95 7960			
110	2375												2.72 9904			2.74 8080	1.63 8873		2.72 6739	1.79 7403	1.04 8152			
115	2482												2.97 10179			2.99 8280	1.78 9093		2.97 6894	1.96 7574	1.14 8340			
120	2590												3.24 10450			3.26 8476	1.94 9308		3.24 7046	2.13 7741	1.24 8524			
125	2700												3.51 10717			3.54 8668	2.10 9519		3.51 7195	2.32 7905	1.34 8704			
130	2810												3.80 10979			3.83 8857	2.27 9727		3.80 7341	2.51 8065	1.45 8881			
135	2918	Boldface italics indicate nozzle pressure (in wg)																2.45 9931			2.70 8223	1.57 9054		
140	3022	Ratings based on: 25 Δt, 1 50 gpm, 16-ft water coil pressure drop (all sizes)																2.64 10131			2.91 8377	1.69 9225		
145	3130	Δt = t _{rm} - t _{ew} where, t _{rm} = room temperature																2.83 10328			3.12 8529	1.81 9392		
150	3240	t _{ew} = ent water temperature																3.03 10523			3.34 8679	1.94 9557		
155	3350	All ratings include allowance for lint screen																3.23 10714			3.56 8826	2.07 9719		
160	3460															3.44 10902			3.80 8971	2.20 9878				
165	3565															3.66 11088				2.34 10035				
170	3675															3.89 11272				2.49 10190				

Boldface italics indicate nozzle pressure (in wg)

Ratings based on:

25 Δt, 1 50 gpm, 16-ft water coil pressure drop (all sizes)

Δt = t_{rm} - t_{ew}

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen

NOTES

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1 50 gpm.

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SV standard vertical unit (2-pipe)

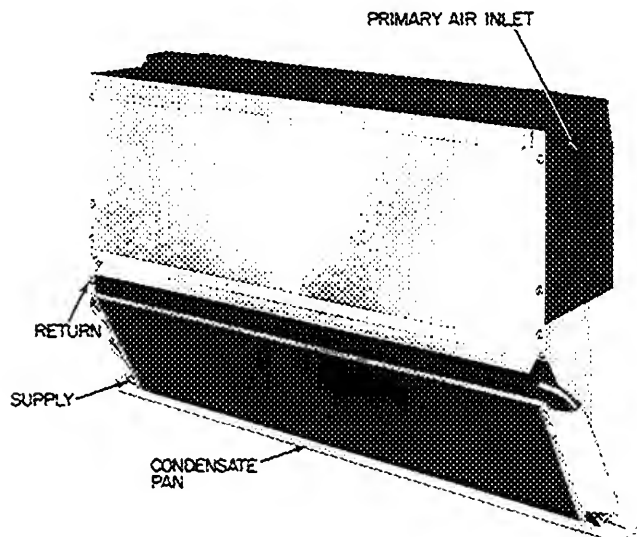
The 36SV in its standard enclosure measures 22 inches high and 8 inches deep. The unit is shipped from the factory with the following

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil.
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with 10--24 field-supplied bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	4080	3400	2755	2110	1495
2	5440	4535	3675	2815	1995
3	6800	5665	4590	3515	2495
4	8840	7365	5965	4570	3240

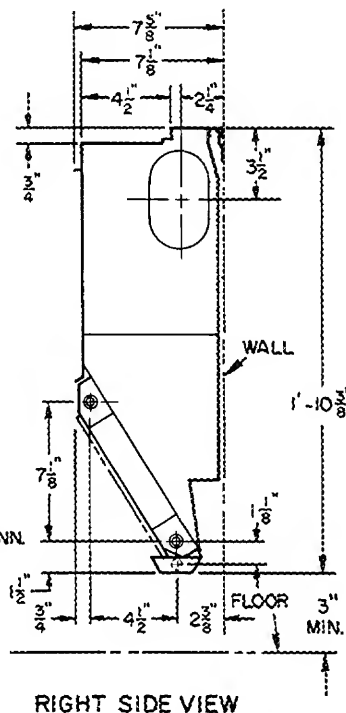
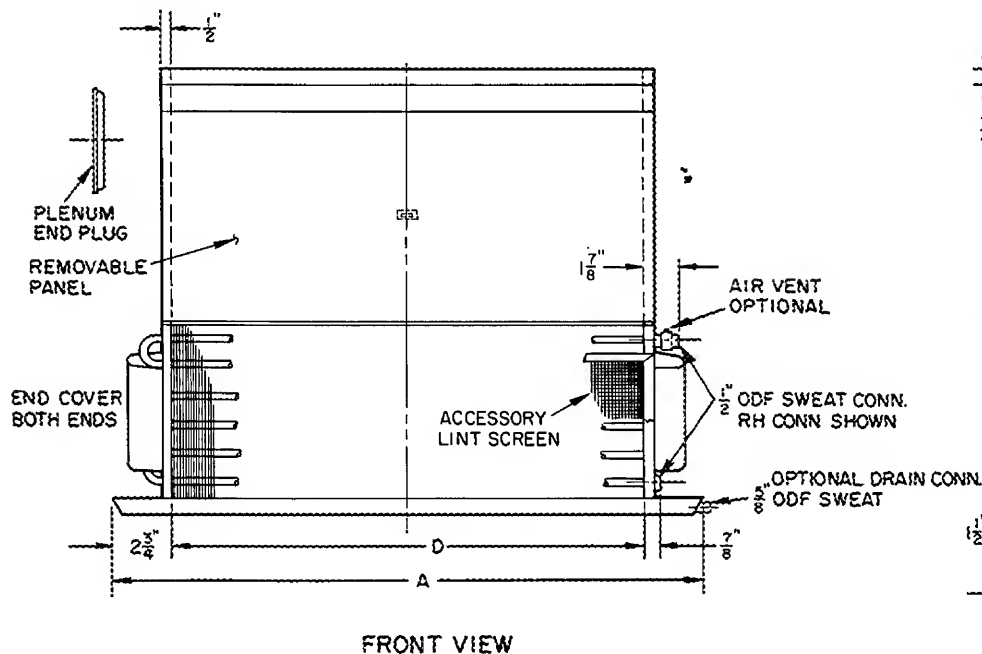
NOTE: For capacities other than 1.50 gpm, use the following multipliers - 0.75 for 0.60 gpm, 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)				
A	29 1/2	37 1/2	45 1/2	57 1/2
D	24 3/4	32	40	52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	234	288	343	439

BASE LEFT-HAND UNIT

(Shown with optional flare fittings and accessory lint screen)

This is not a certified print. Certified dimensions available upon request.



Performance data

36SV COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		Unit Size																			
15	324	0.89 1537																			
20	432	1.59 2022	0.94 2080			0.81 2098															
25	540	2.48 2501	1.47 2573	0.97 2620		1.26 2443	0.74 2669														
30	648	3.57 2976	2.11 3062	1.39 3118		1.82 2767	1.07 3022	0.71 3227		0.89 2639											
35	756		2.88 3546	1.90 3611	1.10 3592	2.48 3074	1.46 3357	0.97 3585		1.21 2902	0.71 3204										
40	864		3.76 4028	2.48 4101	1.44 4080	3.24 3367	1.91 3678	1.26 3927	0.73 4163	1.58 3152	0.94 3479			0.92 2940							
45	972			3.14 4588	1.82 4564		2.42 3986	1.60 4256	0.93 4511	2.01 3389	1.19 3742	0.78 4030		1.17 3137	0.72 3555						
50	1080			3.88 5073	2.25 5046		2.99 4283	1.97 4573	1.14 4847	2.48 3617	1.46 3993	0.96 4300	0.56 4612	1.45 3324	0.89 3767			0.95 3169			
55	1188				2.72 5526		3.62 4570	2.39 4880	1.39 5173	3.00 3836	1.77 4235	1.17 4561	0.68 4892	1.75 3503	1.07 3970	0.68 4289		1.15 3328			
60	1296				3.24 6004			2.85 5179	1.65 5489	3.57 4048	2.11 4469	1.39 4812	0.81 5162	2.09 3674	1.28 4164	0.81 4499		1.36 3479	0.81 3939		
65	1405							3.34 5470	1.94 5797		2.48 4695	1.63 5056	0.95 5423	2.45 3839	1.50 4352	0.95 4702		1.60 3625	0.95 4104		
70	1512							2.25 6098	2.87 4915	1.90 5293	1.10 5677	2.84 3999	1.74 4533	1.11 4897				1.86 3765	1.10 4263	0.72 4683	
75	1620							2.58 6392	3.30 5128	2.18 5523	1.26 5924	3.26 4154	2.00 4708	1.27 5086	0.75 5586			2.13 3901	1.26 4416	0.83 4852	
80	1730							2.94 6680	3.76 5337	2.48 6164	1.44 4304	3.71 4878	2.27 5270	1.45 5788	0.86 4032			2.43 4564	1.44 5015	0.95 5015	
85	1838							3.32 6962			2.80 5966	1.62 6399		2.57 5043	1.63 5449	0.97 5984	2.74 4159	1.62 4709	1.07 5173		
90	1942										3.14 6181	1.82 6629		2.88 5204	1.83 5622	1.09 6175	3.08 4283	1.82 4849	1.20 5327	0.69 5866	
95	2055										3.50 6390	2.03 6854		3.21 5361	2.04 5792	1.21 6361	3.43 4403	2.03 4985	1.34 5476	0.77 6030	
100	2160										2.25 7074			3.56 5514	2.26 5958	1.34 6543	3.80 4521	2.25 5118	1.48 5622	0.86 6191	
105	2265										2.48 7290			3.92 5664	2.50 6120	1.48 6721		2.48 5247	1.63 5765	0.95 6348	
110	2375										2.72 7503				2.74 6278	1.63 6895		2.72 5374	1.79 5904	1.04 6501	
115	2482										2.97 7711				2.99 6433	1.78 7065		2.97 5498	1.96 6040	1.14 6651	
120	2590										3.24 7917				3.26 6586	1.94 7232		3.24 5619	2.13 6173	1.24 6797	
125	2700										3.51 8119				3.54 6735	2.10 7396		3.51 5738	2.32 6303	1.34 6941	
130	2810														2.27 7558			3.80 5854	2.51 6431	1.45 7082	
135	2918														2.45 7716				2.70 6557	1.57 7220	
140	3022														2.64 7872				2.91 6680	1.69 7356	
145	3130														2.83 8025				3.12 6802	1.81 7490	
150	3240														3.03 8176				3.34 6921	1.94 7621	
155	3350														3.23 8325				3.56 7038	2.07 7750	
160	3460														3.44 8471				3.80 7154	2.20 7877	
165	3565																			2.34 8002	
170	3675																			2.49 8126	

Boldface Italics indicate nozzle pressure (in. wg).

Ratings based on:

25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes)

Δt = t_{rm} - t_{ew}

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen.

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SH standard horizontal unit (2-pipe)

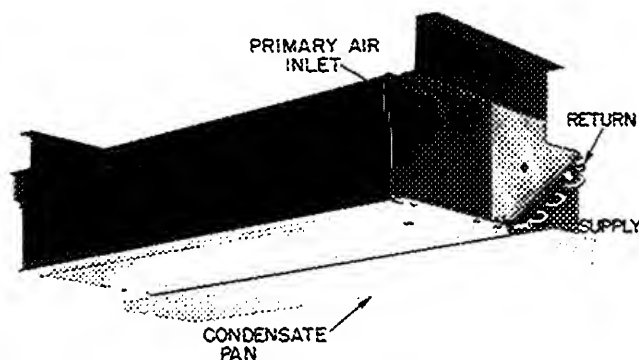
The 36SH in its standard enclosure measures 12 inches deep. The unit is shipped from the factory with the following.

- **plenum**
- **one 6-tube coil**, with copper tubes and aluminum fins
- **drain pan**, assembled
- **two Z brackets** for mounting unit to a rigid flat horizontal surface
- **removable plenum end plug**, located in one of the primary air inlets

- **two screws and a lint clip**, taped to the front panel of the unit, to attach an accessory lint screen to the coil (with enclosure models, the lint screen can be attached to the recirculation grille for easy accessibility).
- **two standard lint screen offerings**, on coil face or on recirculation grille.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories for optional drain connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

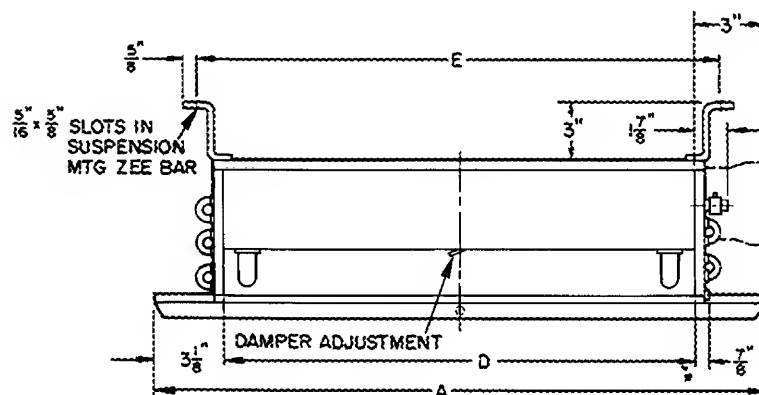
→ Dimensions and physical data



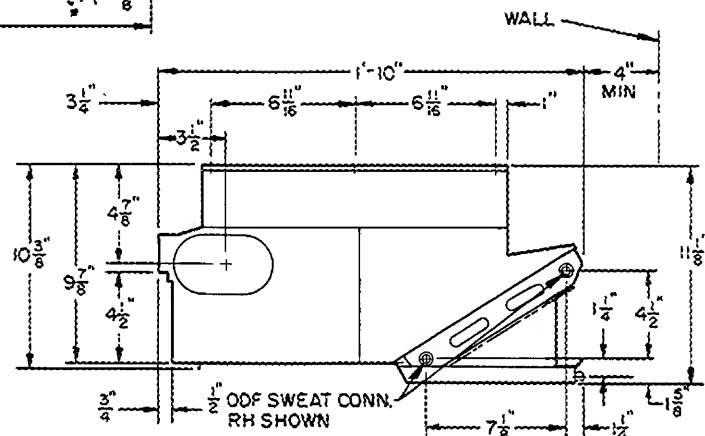
BASE RIGHT-HAND UNIT
(Shown with optional flare fittings and 2-in. brackets attached.)

UNIT SIZE		1	2	3	4
Dimensions (in.)	A	30 3/4	38 1/4	46 3/4	58 1/4
	D	24 1/4	32	40	52
	E	27	34 1/4	42 3/4	54 1/4
Minimum Free Areas (sq in.)					
Discharge Grille		81	108	135	175
Recirculation Grille		234	288	343	439

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SH COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																				
Cfm	20 F Δt (Btuh)	Cap.	F				G				H				J				K			
		Unit Size																				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
15	324	0.89 1537																				
20	432	1.59 2022	0.94 2080			0.81 2098																
25	540	2.48 2501	1.47 2573	0.97 2620		1.26 2443	0.74 2669															
30	648	3.57 2976	2.11 3062	1.39 3118		1.82 2767	1.07 3022	0.71 3227		0.89 2639												
35	756		2.88 3546	1.90 3611	1.10 3592	2.48 3074	1.46 3357	0.97 3585		1.21 2902	0.71 3204											
40	864		3.76 4028	2.48 4101	1.44 4080	3.24 3367	1.91 3678	1.26 3927	0.73 4163	1.58 3152	0.94 3479			0.92 2940								
45	972		3.14 4588	1.82 4564		2.42 3986	1.60 4256	0.93 4511	2.01 3389	1.19 3742	0.78 4030		1.17 3137	0.72 3555								
50	1080		3.88 5073	2.25 5046		2.99 4283	1.97 4573	1.14 4847	2.48 3617	1.46 3993	0.96 4300	0.56 4612	1.45 3324	0.89 3767				0.95 3169				
55	1188			2.72 5526		3.62 4570	2.39 4880	1.39 5173	3.00 3836	1.77 4235	1.17 4561	0.68 4892	1.75 3503	1.07 3970	0.68 4289			1.15 3328				
60	1296			3.24 6004			2.85 5179	1.65 5489	3.57 4048	2.11 4469	1.39 4812	0.81 5162	2.09 3674	1.28 4164	0.81 4499			1.36 3479	0.81 3939			
65	1405						3.34 5797	1.94 5797		2.48 4695	1.63 5056	0.95 5453	2.45 3839	1.50 4352	0.95 4702			1.60 3625	0.95 4104			
70	1512						2.25 6098	1.10 5293		2.87 4915	1.90 5293	1.10 5677	2.84 3999	1.74 4533	1.11 4897			1.86 3765	1.10 4263	0.72 4683		
75	1620						2.58 6392	1.26 5128		3.30 5128	2.18 5523	1.26 5924	3.26 4154	2.00 4708	1.27 5086	0.75 5586		2.13 3901	1.26 4416	0.83 4852		
80	1730						2.94 6680	1.44 6164		3.76 5337	2.48 5747	1.44 6164	3.71 4304	2.27 4878	1.45 5270	0.86 5788		2.43 4032	1.44 4564	0.95 5015		
85	1838						3.32 6962				2.80 5966	1.62 6399		2.57 5043	1.63 5449	0.97 5984	2.74 4159	1.62 4709	1.07 5173			
90	1942										3.14 6181	1.82 6629		2.88 5204	1.83 5622	1.09 6175	3.08 4283	1.82 4849	1.20 5327	0.69 5866		
95	2055										3.50 6390	2.03 6854		3.21 5361	2.04 5792	1.21 6361	3.43 4403	2.03 4985	1.34 5476	0.77 6030		
100	2160										2.25 7074			3.56 5514	2.26 5958	1.34 6543	3.80 4521	2.25 5118	1.48 5622	0.86 6191		
105	2265										2.48 7290			3.92 5664	2.50 6120	1.48 6721		2.48 5247	1.63 5765	0.95 6348		
110	2375										2.72 7503				1.63 6278			2.72 5374	1.79 5904	1.04 6501		
115	2482										2.97 7711				1.78 6433			2.97 5498	1.96 6040	1.14 6651		
120	2590										3.24 7917				1.94 6586			3.24 5619	2.13 6173	1.24 6797		
125	2700										3.51 8119				2.10 7396			3.51 5738	2.32 6303	1.34 6941		
130	2810														2.27 7558			3.80 5854	2.51 6431	1.45 7082		
135	2918														2.45 7716				2.70 6557	1.57 7220		
140	3022														2.64 7872				2.91 6680	1.69 7356		
145	3130														2.83 8025				3.12 6802	1.81 7490		
150	3240														3.03 8176				3.34 6921	1.94 7621		
155	3350														3.23 8325				3.56 7038	2.07 7750		
160	3460														3.44 8471				3.80 7154	2.20 7877		
165	3565																			2.34 8002		
170	3675																			2.49 8126		

Boldface Italics indicate nozzle pressure (in. wg).

Ratings based on:

25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes)

Δt = t_{rm} - t_{ew}

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen.

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SD standard vertical unit (4-pipe)

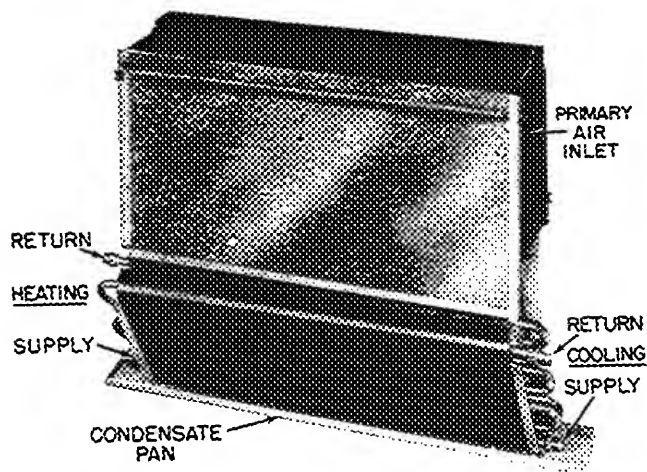
The 36SD base unit is shipped from the factory with the following

- plenum
- two 6-tube coils
- drain pan, assembled ready for wall mounting
- removable plenum end plug, located in one of the primary air inlets

- two lint screen clips, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- speed nuts, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10-24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

Dimensions and physical data



BASE UNIT
(Shown with optional flare fittings)

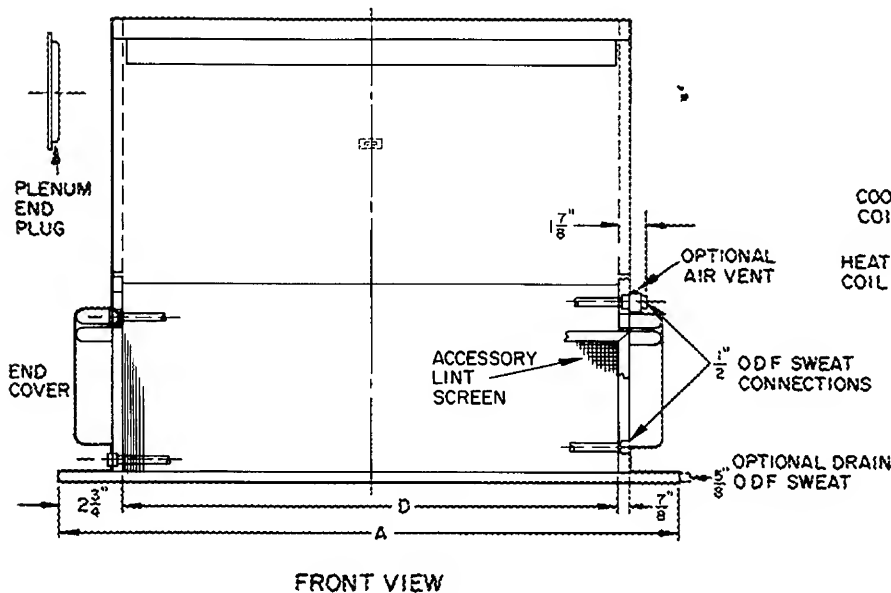
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water - Room Temp) (F)				
	140	120	100	80	60
1	3670	3060	2480	1900	1345
2	4895	4080	3310	2535	1795
3	6120	5100	4130	3165	2245
4	7955	6630	5370	4115	2915

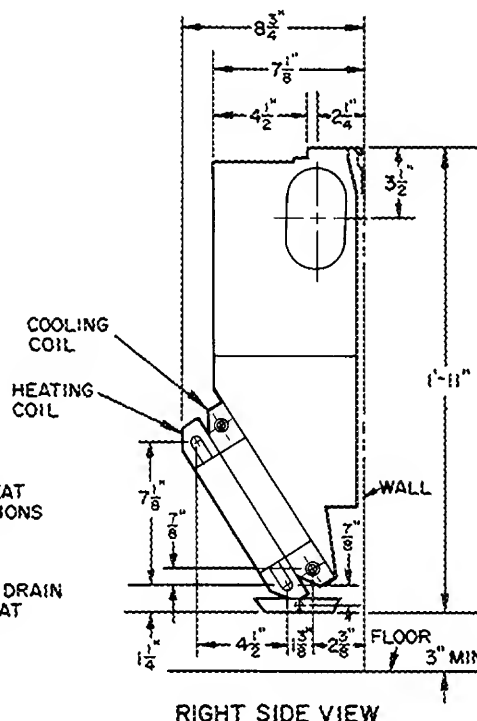
NOTE: For capacities other than 1.50 gpm, use the following multipliers — 0.75 for 0.60 gpm; 0.84 for 1.00 gpm, 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
Dimensions (in.)				
A	29 ³ / ₈	37 ³ / ₈	45 ³ / ₈	57 ³ / ₈
D	24 ¹ / ₈	32	40	52
Minimum Free Areas (sq in.)				
Discharge Grille	81	108	134	175
Recirculation Grille	237	315	394	512

This is not a certified print. Certified dimensions available upon request.



FRONT VIEW



RIGHT SIDE VIEW

Performance data

36SD COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		Unit Size																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89 1383																			
20	432	1.59 1820	0.94 1872			0.81 1888															
25	540	2.48 2251	1.47 2316	0.97 2358		1.26 2199	0.74 2402														
30	648	3.57 2678	2.11 2756	1.39 2806		1.82 2490	1.07 2720	0.71 2904		0.89 2375											
35	756		2.88 3192	1.90 3250	1.10 3233	2.48 2766	1.46 3022	0.97 3227		1.21 2612	0.71 2884										
40	864		3.76 3625	2.48 3691	1.44 3672	3.24 3030	1.91 3310	1.26 3534	0.73 3746	1.58 2837	0.94 3131			0.92 2646							
45	972			3.14 4129	1.82 4108		2.42 3587	1.60 3830	0.93 4060	2.01 3050	1.19 3367	0.78 3627		1.17 2823	0.72 3200						
50	1080			3.88 4565	2.25 4542		2.99 3854	1.97 4116	1.14 4362	2.48 3255	1.46 3594	0.96 3870	0.56 4151	1.45 2991	0.89 3391			0.95 2852			
55	1188				2.72 4974		3.62 4113	2.39 4392	1.39 4655	3.00 3453	1.77 3811	1.17 4105	0.68 4403	1.75 3152	1.07 3573	0.68 3860			1.15 2995		
60	1296				3.24 5403			2.85 4661	1.65 4940	3.57 3643	2.11 4022	1.39 4331	0.81 4645	2.09 3307	1.28 3748	0.81 4049			1.36 3131	0.81 3545	
65	1405				3.80 5832			3.34 4923	1.94 5217		2.48 4225	1.63 4550	0.95 4881	2.45 3455	1.50 3917	0.95 4231			1.60 3263	0.95 3693	
70	1512							3.88 5178	2.25 5488		2.87 4423	1.90 4763	1.10 5109	2.84 3599	1.74 4079	1.11 4407			1.86 3389	1.10 3836	0.72 4215
75	1620								2.58 5753		3.30 4615	2.18 4971	1.26 5331	3.26 3738	2.00 4237	1.27 4578	0.75 5027		2.13 3511	1.26 3974	0.83 4366
80	1730								2.94 6012		3.76 4803	2.48 5173	1.44 5548	3.71 3873	2.27 4390	1.45 4743	0.86 5209		2.43 3629	1.44 4108	0.95 4513
85	1838								3.32 6265			2.80 5370	1.62 5759		2.57 4539	1.63 4904	0.97 5385	2.74 3743	1.62 4238	1.07 4656	
90	1942								3.72 6515			3.14 5563	1.82 5966		2.88 4684	1.83 5060	1.09 5557	3.08 3855	1.82 4364	1.20 4794	0.69 5279
95	2055											3.50 5751	2.03 6168		3.21 4825	2.04 5213	1.21 5725	3.43 3963	2.03 4486	1.34 4929	0.77 5427
100	2160											3.87 5936	2.25 6367		3.56 4963	2.26 5362	1.34 5888	3.80 4069	2.25 4606	1.48 5060	0.86 5572
105	2265												2.48 6561		3.92 5098	2.50 5508	1.48 6048		2.48 4722	1.63 5188	0.95 5713
110	2375												2.72 6752			2.74 5650	1.63 6205		2.72 4836	1.79 5313	1.04 5851
115	2482												2.97 6940			2.99 5790	1.78 6359		2.97 4948	1.96 5436	1.14 5986
120	2590												3.24 7125			3.26 5927	1.94 6509		3.24 5057	2.13 5556	1.24 6118
125	2700												3.51 7307			3.54 6061	2.10 6657		3.51 5164	2.32 5673	1.34 6247
130	2810												3.80 7486			3.83 6194	2.27 6802		3.80 5269	2.51 5788	1.45 6374
135	2918																2.45 6944			2.70 5901	1.57 6498
140	3022																2.64 7084			2.91 6012	1.69 6620
145	3130																2.83 7222			3.12 6121	1.81 6741
150	3240																3.03 7358			3.34 6229	1.94 6859
155	3350																3.23 7492			3.56 6334	2.07 6975
160	3460																3.44 7624			3.80 6438	2.20 7089
165	3565																3.66 7754				2.34 7202
170	3675																3.89 7882				2.49 7313

NOTES:

1. Coil capacity for other than 25 F Δt :

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SJ standard horizontal unit (4-pipe)

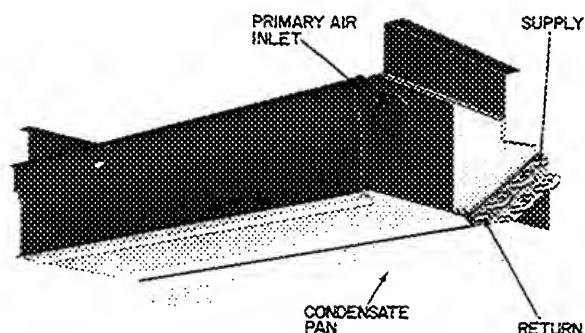
The 36SJ base unit is shipped from the factory with the following:

- **plenum**
- **two 6-tube coils**
- **drain-pan**, assembled
- **two Z brackets** for mounting unit to a rigid flat horizontal surface
- **removable plenum end plug**, located in one of the primary air inlets

- **two screws and a lint clip**, taped to the front panel of the unit, to attach an accessory lint screen to the coil
- **two standard lint screen offerings**, on coil face or on recirculation grille.

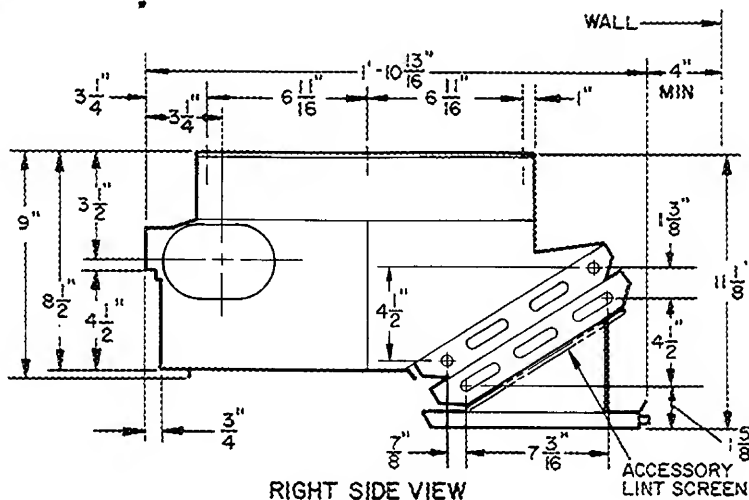
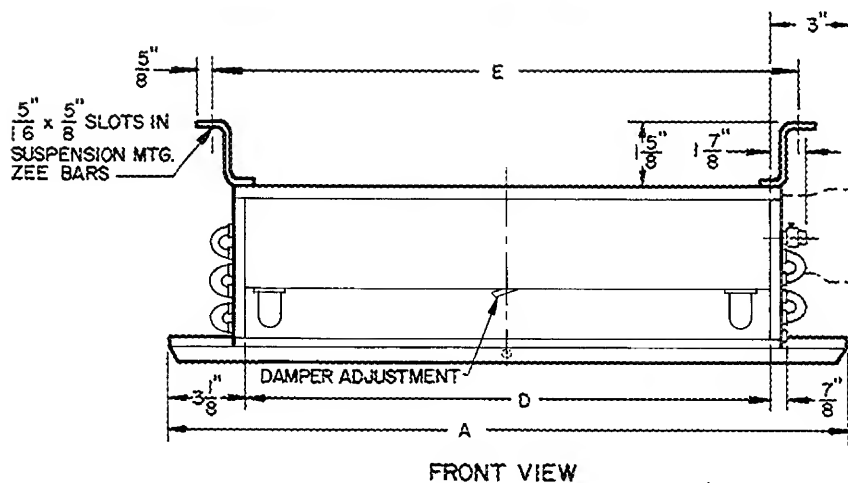
The coil has 1/2-in ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



UNIT SIZE	1	2	3	4
DIMENSIONS (in.)				
A	30 3/4	38 3/4	46 3/4	58 3/4
D	24 3/4	32	40	52
MINIMUM FREE AREAS (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	234	288	343	439

This is not a certified print. Certified dimensions available upon request.



Performance data

36SJ COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		Unit Size				Unit Size				Unit Size				Unit Size				Unit Size			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89 1383																			
20	432	1.59 1820	0.94 1872			0.81 1888															
25	540	2.48 2251	1.47 2316	0.97 2358		1.26 2199	0.74 2402														
30	648	3.57 2678	2.11 2756	1.39 2806		1.82 2490	1.07 2720	0.71 2904		0.89 2375											
35	756		2.88 3192	1.90 3250	1.10 3233	2.48 2766	1.46 3022	0.97 3227		1.21 2612	0.71 2884										
40	864		3.76 3625	2.48 3691	1.44 3672	3.24 3030	1.91 3310	1.26 3534	0.73 3746	1.58 2837	0.94 3131			0.92 2646							
45	972			3.14 4129	1.82 4108		2.42 3587	1.60 3830	0.93 4060	2.01 3050	1.19 3367	0.78 3627		1.17 2823	0.72 3200						
50	1080			3.88 4565	2.25 4542		2.99 3854	1.97 4116	1.14 4362	2.48 3255	1.46 3594	0.96 3870	0.56 4151	1.45 2991	0.89 3391		0.95 2852				
55	1188				2.72 4974		3.62 4113	2.39 4392	1.39 4655	3.00 3453	1.77 3811	1.17 4105	0.68 4403	1.75 3152	1.07 3573	0.68 3860	1.15 2995				
60	1296				3.24 5403			2.85 4661	1.65 4940	3.57 3643	2.11 4022	1.39 4331	0.81 4645	2.09 3307	1.28 3748	0.81 4049	1.36 3131	0.81 3545			
65	1405				3.80 5832			3.34 4923	1.94 5217		2.48 4225	1.63 4550	0.95 4881	2.45 3455	1.50 3917	0.95 4231	1.60 3263	0.95 3693			
70	1512							3.88 5178	2.25 5488		2.87 4423	1.90 4763	1.10 5109	2.84 3599	1.74 4079	1.11 4407	1.86 3389	1.10 3836	0.72 4215		
75	1620							2.58 5753			3.30 4615	2.18 4971	1.26 5331	3.26 3738	2.00 4237	1.27 4578	0.75 5027	2.13 3511	1.26 3974	0.83 4366	
80	1730							2.94 6012			3.76 4803	2.48 5173	1.44 5548	3.71 3873	2.27 4390	1.45 4743	0.86 5209	2.43 3629	1.44 4108	0.95 4513	
85	1838							3.32 6265			2.80 5370	1.62 5759			2.57 4539	1.63 4904	0.97 5385	2.74 3743	1.62 4238	1.07 4656	
90	1942							3.72 6515			3.14 5563	1.82 5966			2.88 4684	1.83 5060	1.09 5557	3.08 3855	1.82 4364	1.20 4794	0.69 5279
95	2055										3.50 5751	2.03 6168			3.21 4825	2.04 5213	1.21 5725	3.43 3963	2.03 4486	1.34 4929	0.77 5427
100	2160										3.87 5936	2.25 6367			3.56 4963	2.26 5362	1.34 5888	3.80 4069	2.25 4606	1.48 5060	0.86 5572
105	2265											2.48 6561			3.92 5098	2.50 5508	1.48 6048		2.48 4722	1.63 5188	0.95 5713
110	2375											2.72 6752				2.74 5650	1.63 6205		2.72 4836	1.79 5313	1.04 5851
115	2482											2.97 6940				2.99 5790	1.78 6359		2.97 4948	1.96 5436	1.14 5986
120	2590											3.24 7125				3.26 5927	1.94 6509		3.24 5057	2.13 5556	1.24 6118
125	2700											3.51 7307				3.54 6061	2.10 6657		3.51 5164	2.32 5673	1.34 6247
130	2810											3.80 7486				3.83 6194	2.27 6802		3.80 5269	2.51 5788	1.45 6374
135	2918															2.45 6944			2.70 5901	1.57 6498	
140	3022															2.64 7084			2.91 6012	1.69 6620	
145	3130															2.83 7222			3.12 6121	1.81 6741	
150	3240															3.03 7358			3.34 6229	1.94 6859	
155	3350															3.23 7492			3.56 6334	2.07 6975	
160	3460															3.44 7624			3.80 6438	2.20 7089	
165	3565															3.66 7754				2.34 7202	
170	3675															3.89 7882				2.49 7313	

NOTES:

1. Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2. See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm.

3. To facilitate balanced water systems, all units, regardless of size, have the same pressure drop.

36SM lobby unit (4-pipe)

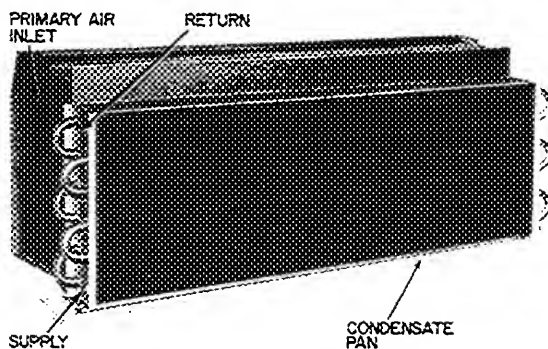
The 36SM base unit is shipped from the factory with the following:

- **plenum**
- **two 6-tube coils**
- **drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum for leveling the unit with field-supplied 10–24 bolts.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



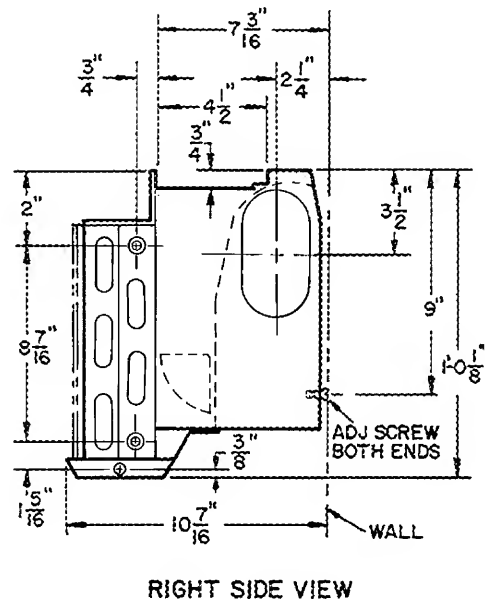
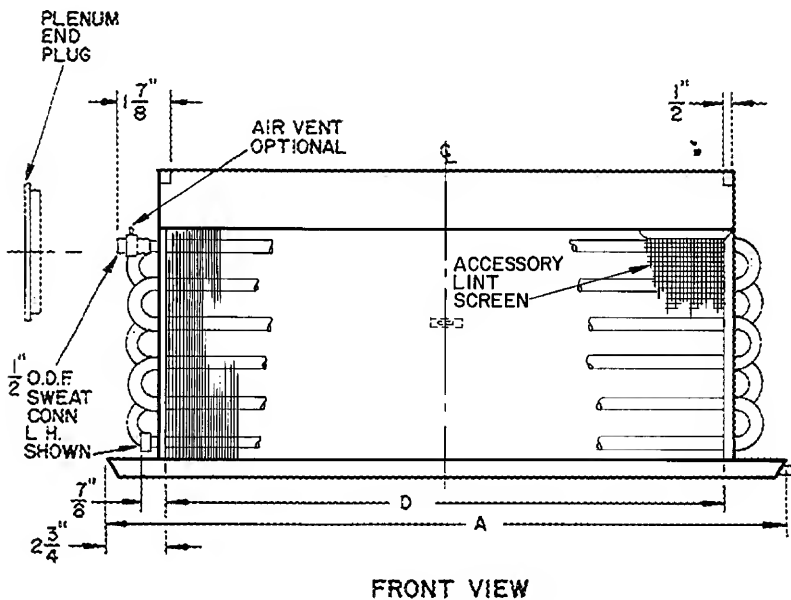
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	3402	2835	2297	1758	1247
2	4536	3780	3062	2344	1663
3	5670	4725	3827	2930	2079
4	7371	6142	4975	3808	2703

NOTE For capacities other than 1.50 gpm, use the following multipliers – 0.75 for 0.60 gpm, 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE	1	2	3	4
DIMENSIONS (in.)				
A	29 3/8	37 1/2	45 1/2	57 1/2
D	24 3/8	32	40	52
MINIMUM FREE AREAS (sq in.)				
Discharge Grille	81	108	135	175
Recirculation Grille	124	165	206	269

This is not a certified print. Certified dimensions available upon request.



Performance data

36SM COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR		NOZZLE ARRANGEMENT																			
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		Unit Size				Unit Size				Unit Size				Unit Size				Unit Size			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89 1517																			
20	432	1.59 1996	0.94 2054			0.81 1979															
25	540	2.48 2469	1.47 2540	0.97 2587		1.26 2304	0.74 2516														
30	648	3.57 2938	2.11 3022	1.39 3079		1.82 2609	1.07 2850	0.71 3043		0.89 2375											
35	756		2.88 3500	1.90 3565	1.10 3546	2.48 2899	1.46 3166	0.97 3381		1.21 2612	0.71 2884										
40	864		3.76 3976	2.48 4048	1.44 4027	3.24 3175	1.91 3468	1.26 3703	0.73 3926	1.58 2837	0.94 3131			0.92 2523							
45	972			3.14 4529	1.82 4506		2.42 3758	1.60 4013	0.93 4254	2.01 3050	1.19 3368	0.78 3627		1.17 2691	0.72 3050						
50	1080				5007		2.99 4039	1.97 4312	1.14 4571	2.48 3255	1.46 3594	0.96 3870	0.56 4151	1.45 2852	0.89 3231			0.95 2560			
55	1188						3.62 4602	2.39 4958	1.39 3453	3.00 3812	1.77 4105	1.17 4403	0.68 3005	1.75 3407	1.07 3680			1.15 2687			
60	1296							2.85 4883	1.65 5176	3.57 3643	2.11 4022	1.39 4335	0.81 4646	2.09 3152	1.28 3573	0.81 3861		1.36 2809	0.81 3181		
65	1405							3.34 5158	1.94 5467		2.48 4226	1.63 4559	0.95 4881	2.45 3294	1.50 3734	0.95 4034		1.60 2927	0.95 3314		
70	1512							3.88 5425	2.25 5750		2.87 4424	1.90 4769	1.10 5109	2.84 3431	1.74 3889	1.11 4202		1.86 3040	1.10 3442	0.72 3782	
75	1620								2.58 6028		3.30 4615	2.18 4971	1.26 5332	3.26 3564	2.00 4039	1.27 4364	0.75 4793	2.13 3151	1.26 3566	0.83 3918	
80	1730								2.94 6300		3.76 4803	2.48 5172	1.44 5548	3.71 3693	2.27 4183	1.45 4522	0.86 4966	2.43 3256	1.44 3686	0.95 4050	
85	1838								3.32 6565			2.80 5370	1.62 5759		2.57 4327	1.63 4675	0.97 5134	2.74 3359	1.62 3803	1.07 4177	
90	1942								3.72 6826			3.14 5563	1.82 5966		2.88 4465	1.83 4824	1.09 5298	3.08 3459	1.82 3915	1.20 4301	0.69 4736
95	2055											3.50 5751	2.03 6169		3.21 4600	2.04 4970	1.21 5458	3.43 3556	2.03 4025	1.34 4423	0.77 4870
100	2160											3.87 5936	2.25 6367		3.56 4731	2.26 5112	1.34 5614	3.80 3651	2.25 4133	1.48 4540	0.86 5000
105	2265												2.48 6561		3.92 4860	2.50 5251	1.48 5766		1.63 4237	0.95 4655	
110	2375												2.72 6753			2.74 5387	1.63 5916		1.79 4340	1.04 4768	
115	2482												2.97 6940			2.99 5520	1.78 6061		1.96 4440	1.14 4877	
120	2590												3.24 7126			3.26 5651	1.94 6205		2.13 4537	1.24 4985	
125	2700												3.51 7307			3.54 5780	2.10 6346		2.32 4633	1.34 5090	
130	2810												3.80 7485			3.83 5905	2.27 6485		2.51 4727	1.45 5194	
135	2918																2.45 6620		2.70 5295	1.57 5830	
140	3022																2.64 6754		2.91 5395	1.69 5940	
145	3130																2.83 6885		3.12 5493	1.81 6048	
150	3240																3.03 7075		3.34 5589	1.94 6154	
155	3350																3.23 7142		3.56 5683	2.07 6259	
160	3460																3.44 7268		3.80 5777	2.20 6361	
165	3565																3.66 7392			2.34 6462	
170	3675																3.89 7515			2.49 6560	

Boldface italics indicate nozzle pressure (in. wg).

Ratings based on:

25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.

Δt = t_{rm} - t_{ew}

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen.

All ratings include reduction in capacity for double coil (4-pipe).

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at } 25 \text{ F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

36SP vertical unit with recovery stack (4-pipe)

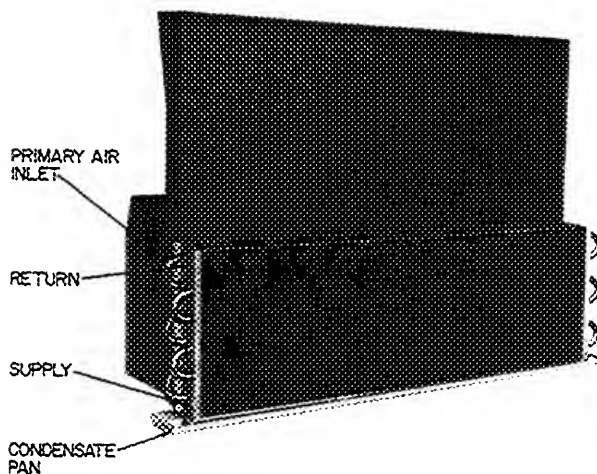
The 36SP base unit is shipped from the factory with the following

- **plenum**
- **two 6-tube coils**
- **recovery stack and drain pan**, assembled ready for wall mounting
- **removable plenum end plug**, located in one of the primary air inlets

- **two lint screen clips**, taped to the bottom of the drain pan, to attach an accessory lint screen to the coil
- **speed nuts**, located in the back flange on each end of the plenum, with two 10–24 bolts for leveling the unit.

The coil has 1/2-in. ODF sweat connections as standard. See Base Unit Accessories, page 28, for optional connections. The accessory lint screen and air transition fitting, shipped separately, complete the unit.

→ Dimensions and physical data



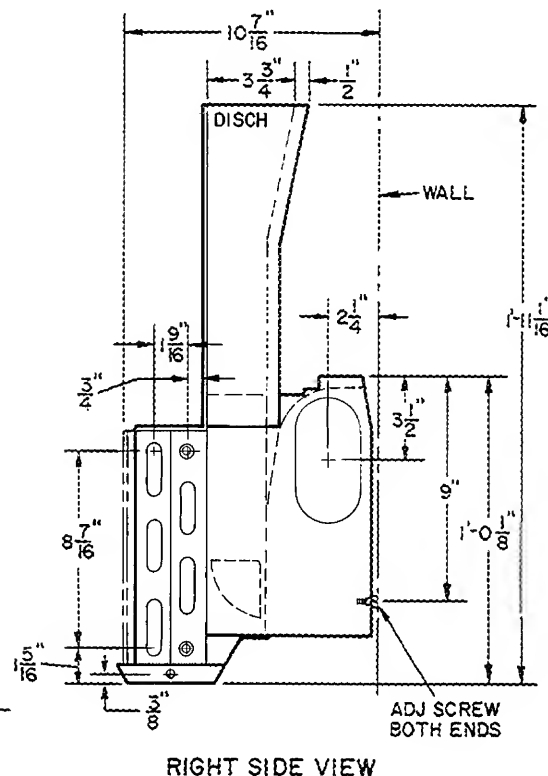
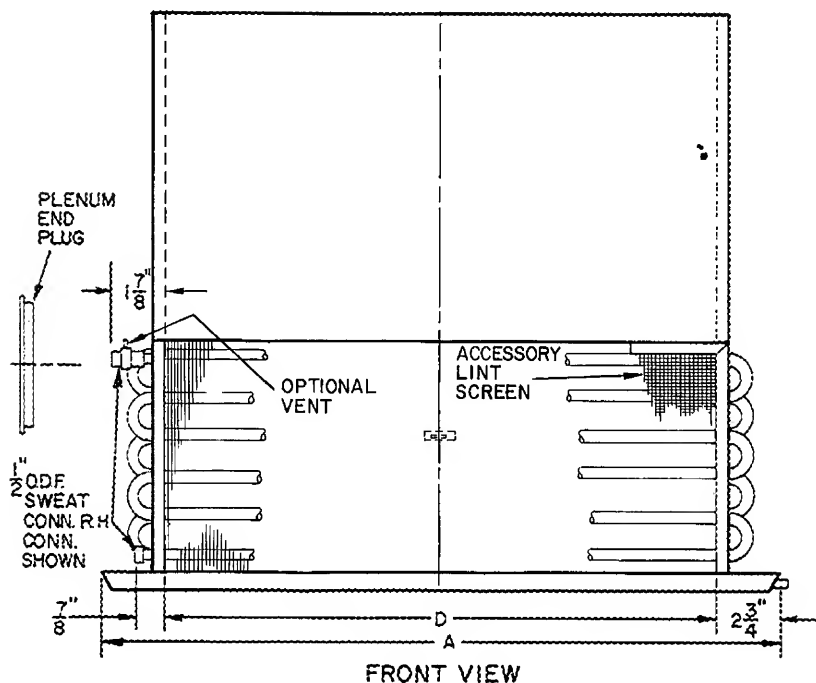
GRAVITY HEATING CAPACITIES (Btuh)

UNIT SIZE	TEMPERATURE DIFFERENCE (Ent Water – Room Temp) (F)				
	140	120	100	80	60
1	5000	4167	3375	2584	1834
2	6670	5558	4502	3446	2446
3	8333	6944	5625	4305	3055
4	10,833	9027	7312	5597	3972

NOTE: For capacities other than 1.50 gpm, use the following multipliers – 0.75 for 0.60 gpm; 0.84 for 1.00 gpm; 1.15 for 2.00 gpm.

UNIT SIZE		1	2	3	4
DIMENSIONS (in.)	A	29½	37½	45½	57½
	D	24½	32	40	52
MINIMUM FREE AREAS (sq in.)					
Discharge Grille		81	108	135	175
Recirculation Grille		237	315	394	512

This is not a certified print. Certified dimensions available upon request.



Performance data

36SP COOLING COIL CAPACITIES (Btuh)

PRIMARY AIR			NOZZLE ARRANGEMENT																		
Cfm	Cap. 20 F Δt (Btuh)	F				G				H				J				K			
		Unit Size																			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
15	324	0.89 1851																			
20	432	1.59 2436	0.94 2505			0.81 2375															
25	540	2.48 3012	1.47 3100	0.97 3156		1.26 2765	0.74 3021														
30	648	3.57 3584	2.11 3687	1.39 3754		1.82 3132	1.07 3421	0.71 3652		0.89 2803											
35	756		2.88 4270	1.90 4348	1.10 4326	2.48 3479	1.46 3800	0.97 4057		1.21 3083	0.71 3403										
40	864		3.76 4850	2.48 4939	1.44 4912	3.24 3811	1.91 4162	1.26 4445	0.73 4710	1.58 3347	0.94 3695			0.92 2900							
45	972			3.14 5525	1.82 5496		2.42 4510	1.60 4816	0.93 5104	2.01 3000	1.19 3974	0.78 4280		1.17 3094	0.72 3508						
50	1080				2.25 6108		2.99 4847	1.97 5175	1.14 5485	2.48 3841	1.46 4241	0.96 4568	0.56 4899	1.45 3279	0.89 3716			0.95 2893			
55	1188				2.72 6654		3.62 5172	2.39 5523	1.39 5854	3.00 4074	1.77 4497	1.17 4894	0.68 5195	1.75 3455	1.07 3916	0.68 4231		1.15 3038			
60	1296				3.24 7230			2.85 5861	1.65 6212	3.57 4300	2.11 4746	1.39 5111	0.81 5482	2.09 3625	1.28 4108	0.81 4439		1.36 3177	0.81 3596		
65	1405				3.80 7812			3.34 6190	1.94 6562		2.48 4986	1.63 5370	0.95 5760	2.45 3788	1.50 4293	0.95 4591		1.60 3309	0.95 3746		
70	1512							3.88 6511	2.25 6901		2.87 5219	1.90 5621	1.10 6030	2.84 3945	1.74 4471	1.11 4831		1.86 3438	1.10 3899		
75	1620								2.58 7233		3.30 5446	2.18 5865	1.26 6291	3.26 4098	2.00 4645	1.27 5018	0.75 5511	2.13 3562	1.26 4032		
80	1730								2.94 7559		3.76 5667	2.48 6104	1.44 6547	3.71 4245	2.27 4812	1.45 5200	0.86 5710	2.43 3682	1.44 4167		
85	1838								3.32 7878			2.80 6336	1.62 6796		2.57 4975	1.63 5375	0.97 5903	2.74 3797	1.62 4300		
90	1942								3.72 8191			3.14 6564	1.82 7090		2.88 5134	1.83 5547	1.09 6092	3.08 3910	1.82 4426		
95	2055											3.50 6787	2.03 7280		3.21 5289	2.04 5714	1.21 6275	3.43 4020	2.03 4551		
100	2160											3.87 7005	2.25 7513		3.56 5440	2.26 5878	1.34 6454	3.80 4127	2.25 4672		
105	2265											2.48 7743			3.92 5588	2.50 6037	1.48 6630		2.48 4790	1.63 5262	0.95 5795
110	2375											2.72 7968			2.74 6194	1.63 6802		2.72 4906	1.79 5390	1.04 5935	
115	2482											2.97 8190			2.99 6397	1.78 6970		2.97 5018	1.96 5514	1.14 6072	
120	2590											3.24 8408			3.26 6497	1.94 7134		3.24 5130	2.13 5636	1.24 6205	
125	2700											3.51 8622			3.54 6644	2.10 7296		3.51 5238	2.32 5757	1.34 6337	
130	2810											3.80 8834			3.83 6790	2.27 7455		3.80 5344	2.51 5871	1.45 6465	
135	2918															2.45 7612			2.70 5986	1.57 6592	
140	3022															2.64 7765			2.91 6099	1.69 6716	
145	3130															2.83 7917			3.12 6210	1.81 6837	
150	3240															3.03 8065			3.34 6318	1.94 6957	
155	3350															3.23 8212			3.56 6425	2.07 7076	
160	3460															3.44 8357			3.80 6531	2.20 7191	
165	3565															3.66 8500				2.34 7306	
170	3675															3.89 8640				2.49 7418	

Boldface italics indicate nozzle pressure (in. wg).

Ratings based on:
25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.

Δt = t_{rm} - t_{ew}
where, t_{rm} = room temperature
t_{ew} = ent water temperature

All ratings include allowance for lint screen.

All ratings include reduction in capacity for double coil (4-pipe).

Boldface italics indicate nozzle pressure (in. wg).

Ratings based on:

25 Δt, 1.50 gpm, 8-ft water coil pressure drop (all sizes) for a single coil.

Δt = t_{rm} - t_{ew}

where, t_{rm} = room temperature

t_{ew} = ent water temperature

All ratings include allowance for lint screen.

All ratings include reduction in capacity for double coil (4-pipe).

NOTES:

1 Coil capacity for other than 25 F Δt:

$$\frac{t_{rm} - t_{ew}}{25} \times \text{rating at 25 F } \Delta t$$

2 See Coil Capacity Multipliers For Flow Rates table for capacities other than 1.50 gpm

3 To facilitate balanced water systems, all units, regardless of size, have the same pressure drop

Accessories

Enclosures — decorator-styled factory built cabinets are available for 36S Series Weathermaster® induction air terminals. For details, consult your Carrier representative. Grilles, runouts, choice of colors, and additional enclosure accessories for a column-to-column appearance are also available. Certified prints showing details of the enclosure accessories are available upon request. All unit enclosures must maintain published minimum free areas to ensure unit performance.

Special unit lengths — can be built to accommodate a mullion (dead space), special application, or special requirement and are considered on a special order basis.

Furred-in application accessories for vertical units*

Discharge grille frame — made of stamped steel with a baked prime finish. Holds either the discharge grille with access door or the plastic discharge grille sections.

Discharge grille with access door — also has a baked prime finish made of stamped steel.

Two types of plastic discharge grille sections — aerodynamically designed, modular construction, 4- and 7-blade configurations.

Recirculation grille panel and frame — made of stamped steel, with baked prime finish. Easily removable for service, maintenance.

*Standard color is parchment beige; other colors available on a special order basis

Base unit accessories

Lint screen — is required to maintain maximum coil efficiency. The galvanized screen and frame attaches to coil with 2 lint screen clips provided with the base unit, protects coil from dirt and lint. Easily removable for cleaning. Sized to each coil or unit requirement. Aluminum screens available on a special-order basis.

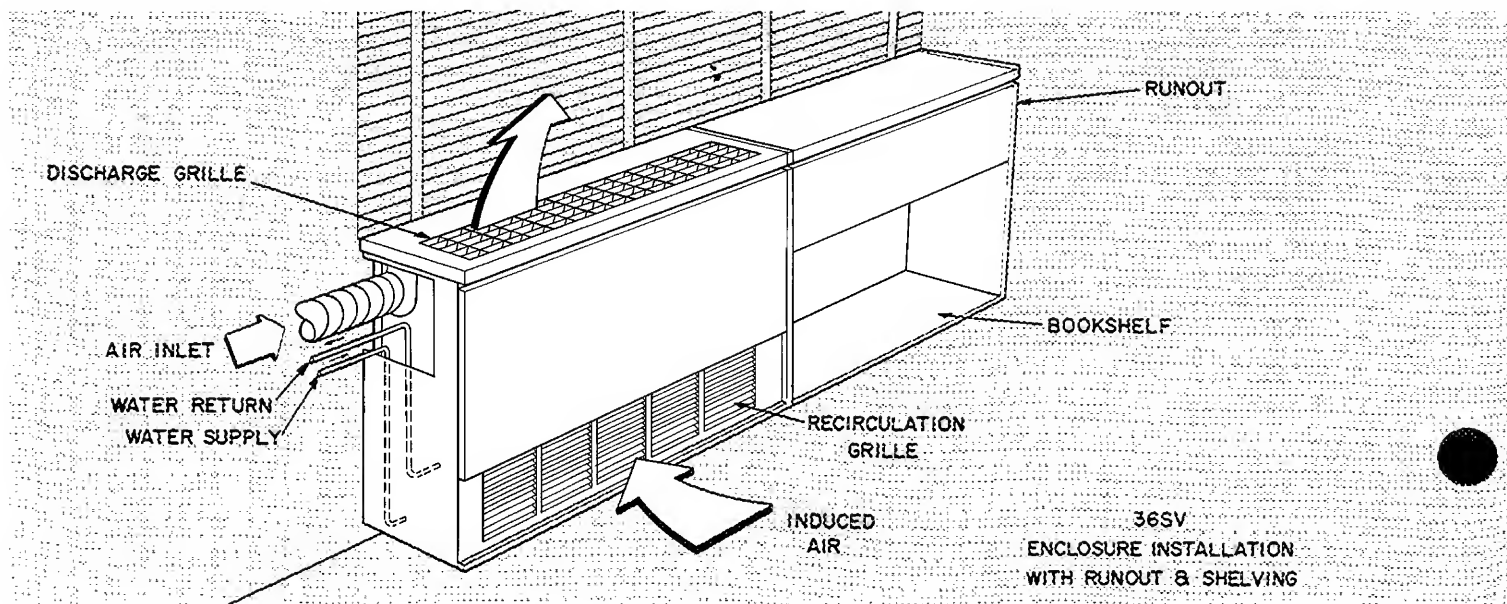
Wall mounting strip — required for hanging all vertical units, enclosures, enclosure accessories. For details, consult your Carrier representative.

Emergency condensate pan — available for times of high latent loads, such as start-up or abnormal condition. The optional drainable pan has 5/8-in. ODF sweat connection and is available for all models and sizes.

Air transition fitting — provides air transition from the oval entrance on the unit to a standard 4-in. round duct. Maximum air quantity is 220 cfm.

Coil connections — four types of coil connections available. 1/2-in. ODF sweat connections are supplied standard. Optional connections: 1/2-in. ODF sweat with manual air vent, 1/2-in. ODM flare; 1/2-in. ODM flare with manual air vent.

Typical installations



Guide specifications

For standard installations with enclosures

1. **Furnish and install** _____ Model 36S Water Control Weathermaster® units of the type, size and arrangement shown on the plans.
- 2a. **Base unit assembly** shall consist of an air inlet, air plenum, induction nozzles, water coil assembly (lint screen or filter), air transition fitting, air plug and nondrainable (drainable) condensate pan.
- 2b. **Air plenum** shall be constructed of galvanized steel. Internal areas shall be acoustically and thermally insulated with neoprene-coated fiber glass. Plenum shall be designed for series connection or feed-thru, and shall contain primary air balancing damper arranged for independent manual adjustment of primary air volume. Recovery stack and outlet collar where required shall be cold-rolled steel painted black.
- 2c. **Induction nozzles** of heat resistant, pliable plastic shall be designed for minimum noise generation. Nozzle arrangement shall be selected to provide capacities as specified.
- 2d. **Water coil assembly** shall consist of a single-row reversible coil with copper tubing mechanically expanded to aluminum plate fins. (Two separate coils shall be furnished for 4-pipe operation.) Coil connections shall be 1/2-in. ODF sweat (1/2-in. ODM flare) (1/2-in. ODF sweat with vent) (1/2-in. ODM flare with vent). Coil shall be suitable for working pressures up to 250 psig. Nondrainable (drainable) galvanized steel condensate pan shall complete the assembly.
- 2e. **Air transition fitting** for connection to 4-in. runout duct shall be die-formed, streamlined and interchangeable with removable air plug.
- 2f. **Lint screen** shall be of fine mesh, properly supported and readily removable for servicing.
- 3a. **Base unit enclosure** shall be constructed of not lighter than 18-gage, cold-rolled steel, bonderized, recoatable baked prime finish. Enclosure shall consist of: removable front access panel with snap-in fasteners to permit easy removal for routine inspection and servicing of unit and controls; removable plastic discharge grille sections designed for 4-way adjustment of air flow,

mounting brackets and suitable accessories for base unit assembly as shown on the plans.

- 3b. **Under-window type enclosures** shall be floor-fed or side-fed as indicated on drawings. Floor-fed enclosures for SV, SC, ST shall be complete with decorative side panels and pedestals with louvers as required. Side-fed enclosures for model SV shall be complete with knockout.
- 3c. **Runout enclosure and panel sections** shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish.
- 3d. **Overhead horizontal enclosure** for model SH shall be complete with support brackets for base unit, hinged bottom panel, and single-blade discharge grille.

For vertical furred-in installations

Omit paragraphs 3a, b, c and d. Add paragraphs 4 and 5.

- 4a. **Discharge grille assembly** shall consist of grille frame with integral mounting collar and removable plastic grille sections, designed for individual 4-way adjustment of air flow. Grille frames shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish, with rolled edges and corners. Frame shall be provided with mounting holes for securing to window stool.
- 4b. **Recirculating grille panel** shall be constructed of not lighter than 18-gage cold-rolled steel, bonderized, recoatable baked prime finish. Panel shall have louvered section with free area not less than indicated on plans and shall be designed for easy removal from frame for routine inspection and servicing. Panel shall fit securely in a frame and be provided with necessary stiffener channels to prevent warping. The frame shall be constructed of black iron angles, welded at corner sections, bonderized and finished in recoatable prime coat. Frame shall be provided with holes or suitable devices for attachment to metal lath or tile block.
- 4c. **All custom enclosures** must meet published minimum free area requirements.
5. Refer to temperature control system specifications for induction unit controls.

